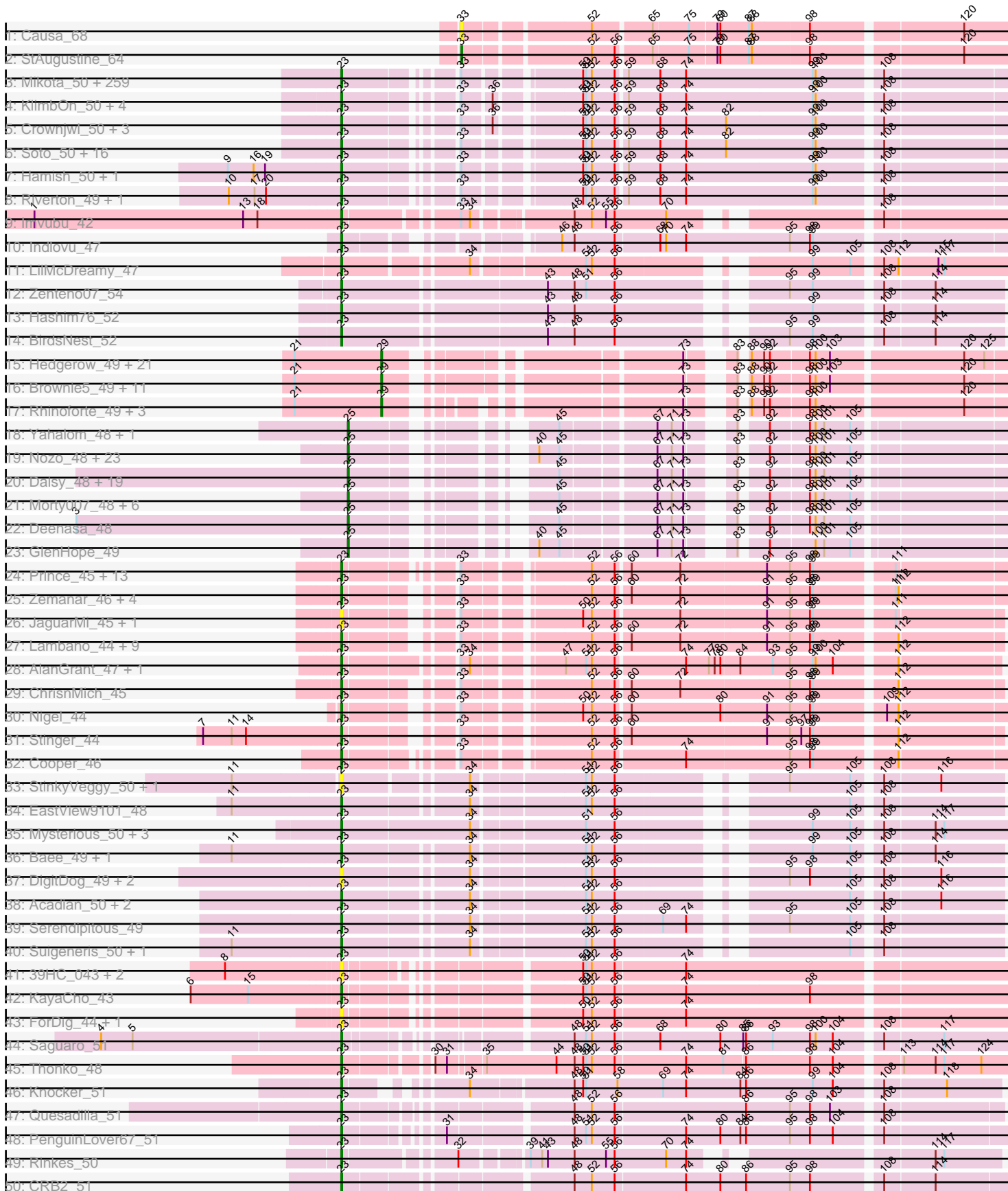
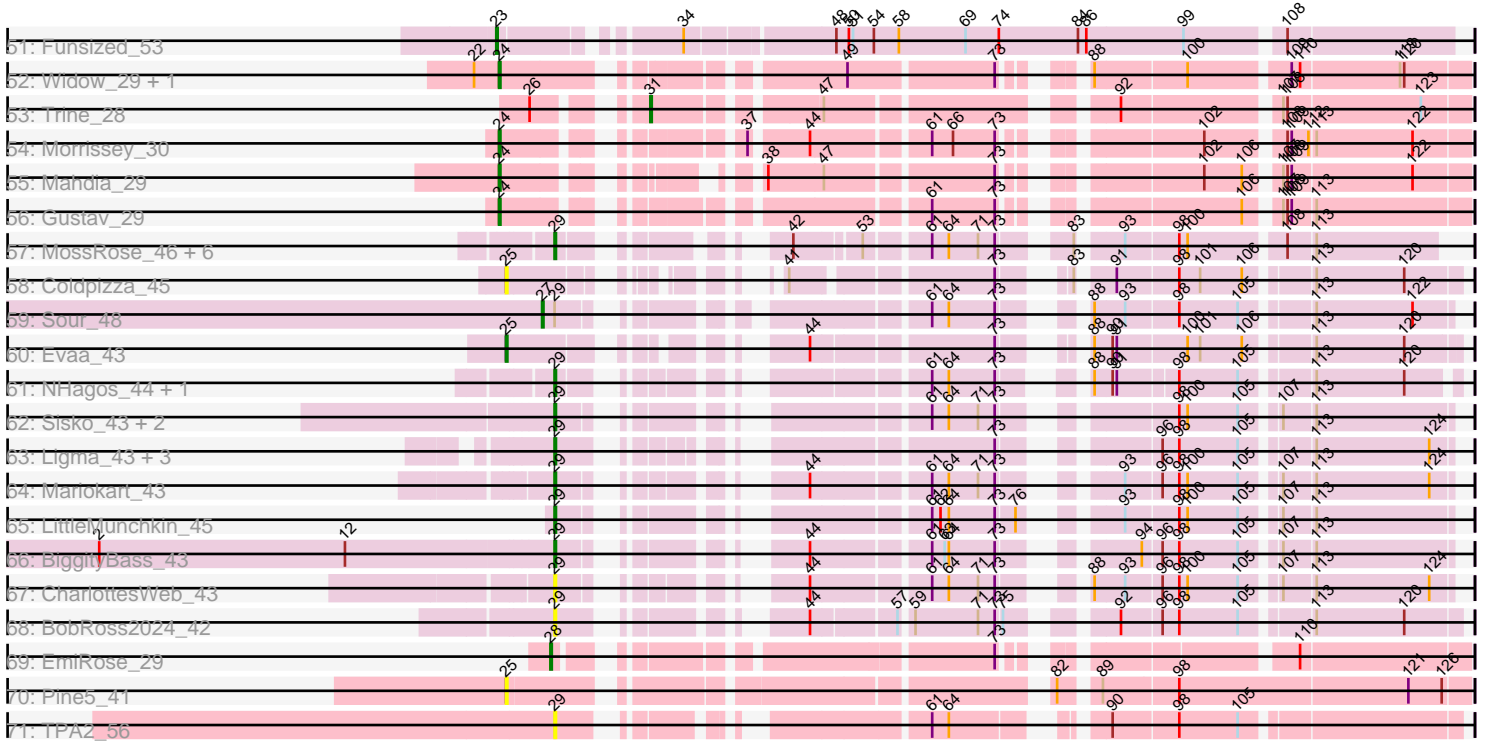


Pham 221004



Pham 221004



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 221004 Report

This analysis was run 03/28/25 on database version 593.

Pham number 221004 has 493 members, 71 are drafts.

Phages represented in each track:

- Track 1 : Causa\_68
- Track 2 : StAugustine\_64
- Track 3 : Mikota\_50, Cornbread\_51, Bluephacebaby\_49, HighStump\_50, Hartsy\_50, Piglet\_0050, Apizium\_50, Frankicide\_50, CamL\_50, Beaglebox\_49, PhenghisKhan\_49, DoesntMatter\_49, Haleema\_49, BlueHusk\_50, Chute\_49, LostAndPhound\_49, Suffolk\_50, Lasso\_50, True\_49, Solosis\_49, Timmi\_49, ThreeOh3D2\_51, AbsoluteMadLad\_49, Dice\_49, Lulumae\_49, Skippy\_50, LeiMonet\_51, PhatLouie\_50, ImtiyazSitla\_50, PhrankReynolds\_48, Dati\_50, Eugenia\_50, Telesworld\_49, YouGoGlencoco\_50, SassyCat97\_49, Serendipity\_50, Kloppinator\_51, Trypo\_51, Roy17\_50, Squiggle\_50, Maskar\_50, Phergie\_50, Zaider\_51, Xavier\_49, Fringe\_51, Jillium\_49, DirtJuice\_50, Kwadwo\_49, Haimas\_50, TallGrassMM\_50, HenryJackson\_49, Burr\_49, Pherdinand\_51, Vaishali24\_49, FugateOSU\_49, Mesmerelda\_51, Etaye\_50, Surely\_50, Mag7\_49, Robyn\_49, Chorkpop\_50, Nyala\_49, Pipsqueak\_50, Melc17\_50, Virapocalypse\_50, Gareth\_49, Rimu\_52, Andre\_51, Kikipoo\_51, CheetO\_50, Ricotta\_49, Chipette\_51, Valjean\_50, Squid\_50, Morty\_51, Daffy\_50, Roscoe\_51, DonSanchon\_49, Vivaldi\_51, Potter\_49, Magic8\_50, Morgushi\_50, Orfeu\_49, Numberten\_50, TooFast2Furius\_53, MiniBoss\_50, Serpentine\_0050, Hetaeria\_50, Soile\_50, Spartan300\_50, Mulan\_50, Prickles\_50, Fozzie\_49, JangoPhett\_50, Horchata\_50, KingTut\_41, MRabcd\_49, Jesabah\_50, MitKao\_50, Boehler\_50, Kahve\_49, Keitherie\_50, Vista\_50, Inchworm\_51, Riggan\_50, Lumine\_49, UAch1\_50, Olive\_50, Fang\_51, Kailash\_50, Gwennie1\_50, CharlieGBrown\_49, Quisquiliae\_50, Jiraiya\_49, Placalicious\_49, BatteryCK\_49, Cosmolli16\_49, BlackStallion\_51, JDog\_49, FriarPreacher\_49, Nicole21\_50, Kwksand96\_49, Slatt\_50, Carthage\_48, Waterdiva\_50, Dione\_49, Orwigg\_49, KLucky39\_50, Selr12\_50, Phleuron\_49, LuckyMarjie\_49, Pacifista\_49, Ashraf\_50, Tooj\_50, Cher\_49, UncleHowie\_50, LasagnaCat\_51, Veritas\_49, MrPhizzler\_49, OSmaximus\_51, Daka\_51, ProfessorX\_50, Gophee\_50, Thora\_50, Iridessa\_51, MichaelPhcott\_49, Megatron\_51, LeeLot\_50, ShiVal\_50, ElvisPhasley\_53, PinheadLarry\_50, DelRivs\_49, Phipps\_50, MelsMeow\_50, Altwerkus\_49, Khan1\_50, Aelin\_49, Maru\_49, CampRoach\_51, Kimbrough\_50, Childish\_49, Oosterbaan\_50, Bishoperium\_49, TomBombadil\_50, Mcshane\_49, Simielle\_49, Craff\_51, Anderson\_50, Sigman\_51, Durga\_51, Badfish\_51, Matalotodo\_50, Banjo\_49, Legolas\_50, LemonSlice\_50, Oline\_49, ABU\_51, Phareon\_50, Hertubise\_50, Caspiboi\_51, Swish\_51, Zelda\_50, PhrodoBaggins\_50, Podrick\_50, SirBeauregard\_50, Cannibal\_50, QueenBeane\_50, Mosaic\_49, Buckeye\_50, Freya\_49, Adriana\_51, Sheila\_50, Grand2040\_49, Vaticameos\_46, Samaymay\_50, Scrick\_50, Eremos\_50, Basato\_51, Swiphy\_52, Katniss\_51,

Windsor\_49, Schadenfreude\_49, Chaelin\_50, Coletti\_49, Sophia\_49, Lopsy\_49, Orion\_51, Scoot17C\_51, Emiris\_51, Nacho\_0051, Brilliant\_50, Charles1\_50, Colbert\_50, KingVeVeVe\_50, Megamind20\_50, Cobra\_50, Mutante\_49, Omniscient\_50, Plata\_50, RedMaple\_50, Usavi\_50, Phunky\_50, Murdoc\_50, IsaacEli\_51, Schueller\_49, Mana\_49, PhatCats2014\_51, Iridoclysis\_50, Lulwa\_50, Nathan\_51, Cornobble\_49, Olak\_49, Held\_50, Gyarad\_0050, AngelCake\_49, Puhltonio\_50, Giraffe\_50, Mecca\_49, Longacauda\_49, Roliet\_50, Virgeve\_49, Lego3393\_49, Harvey\_50, Thunderbird\_49, Phamished\_51, JacAttac\_51, Pops\_50, Toni\_49, PG1\_51, FluffyNinja\_51, Chah\_52, Vortex\_50, Gwilliam\_50, Yoshand\_51, OliverWalter\_50, Hocus\_49, Plmatters\_50, Weher20\_50, Tomlarah\_50, Antonia\_49

- Track 4 : KlimbOn\_50, HSavage\_50, Newman\_50, Manad\_50, Inverness\_50
- Track 5 : Crownjwl\_50, AltPhacts\_50, Chunky\_50, EmpTee\_50
- Track 6 : Soto\_50, Wallhey\_49, Doddsville\_50, Zonia\_50, SDcharge11\_50, Derpp\_49, Labeouficaum\_49, DuchessDung\_49, DaddyDaniels\_50, Dingo\_50, Struggle\_49, Pinkman\_49, GeneCoco\_50, JakeO\_49, Jiminy\_49, Duggie\_49, TyrionL\_49
- Track 7 : Hamish\_50, SilverBell\_50
- Track 8 : Riverton\_49, Mesh1\_50
- Track 9 : Imvubu\_42
- Track 10 : Indlovu\_47
- Track 11 : LilMcDreamy\_47
- Track 12 : Zenteno07\_54
- Track 13 : Hashim76\_52
- Track 14 : BirdsNest\_52
- Track 15 : Hedgerow\_49, Eaglehorse\_49, Boyle\_49, Arbiter\_48, Ares\_49, FrenchFry\_49, Bananafish\_49, Tres\_49, TA17A\_50, Qyrzula\_46, Sabella\_48, Glass\_49, Lephleur\_49, Phantasmagoria\_49, Kaleb\_49, LizLemon\_49, Faze9\_48, West99\_49, Kolhan\_49, Lars\_49, Opia\_49, Rosebush\_48
- Track 16 : Brownie5\_49, Holeinone\_49, MasterPo\_49, ItsyBitsy1\_49, Tinciduntolum\_50, PrinceCharming\_49, Allegro\_49, Kheth\_49, Calamitous\_49, Coffee\_49, Vic9\_00048, Laurie\_48
- Track 17 : Rhinoforte\_49, LilSmirk\_49, Blocker23\_49, Godines\_49
- Track 18 : Yahalom\_48, Briakila\_49
- Track 19 : Nozo\_48, Pipefish\_50, Phaedrus\_46, Philly\_47, Corofin\_48, Heathcliff\_48, Halfpint\_47, Chandler\_48, Devonte\_48, Gadget\_49, OrangeOswald\_48, Kamiyu\_48, Compostia\_49, Shenandoah\_48, SynergyX\_48, Baloo\_48, Chalmers\_48, Bernardo\_49, Athena\_49, Jackstina\_45, Yinz\_48, RagingRooster\_48, Akoma\_48, Audrey\_48
- Track 20 : Daisy\_48, Rita1961\_48, Obutu\_48, Gervas\_48, Marlia\_48, Mortcellus\_47, MmasiCarm\_48, SwainyDoc\_48, TinyTerror\_48, Phlyer\_48, ChaChing\_48, Ben11\_47, Olivio\_47, Phayeta\_49, Casbah\_47, Glubnar\_48, Neos5\_48, SlippinJimmy\_48, Chentzyk\_48, Kronus\_47
- Track 21 : Morty007\_48, Abingghost\_48, LestyG\_48, HarveySr\_48, RomaT\_48, Marley1013\_48, Tydolla\_48
- Track 22 : Deenasa\_48
- Track 23 : GlenHope\_49
- Track 24 : Prince\_45, Fortunato\_46, Hydro\_45, Heath\_44, VioletZ\_47, Fanaw\_44, BobbyK\_46, Magpie\_44, Austelle\_46, Lolalove\_46, Mudslide\_45, RawrgerThat\_46, Frederick\_46, Apex\_46
- Track 25 : Zemanar\_46, Waleliano\_45, BrownCNA\_47, Hangman\_45, Mithril\_45
- Track 26 : JaguarMi\_45, Xincheng\_44
- Track 27 : Lambano\_44, Epah\_44, JAMaL\_45, GinPorsche\_44, Hally898\_44, Antihero\_44, Nanao\_44, Ahwei\_44, QueenPie\_44, Poster\_44

- Track 28 : AlanGrant\_47, Vincenzo\_46
- Track 29 : ChrisnMich\_45
- Track 30 : Nigel\_44
- Track 31 : Stinger\_44
- Track 32 : Cooper\_46
- Track 33 : StinkyVeggy\_50, KarasumaRum\_50
- Track 34 : EastView9101\_48
- Track 35 : Mysterious\_50, Nehemiah\_49, Reprobate\_49, Phelemich\_48
- Track 36 : Bae\_49, Rich\_48
- Track 37 : DigitDog\_49, Nangang\_49, Shenyu\_49
- Track 38 : Acadian\_50, SirJeffery\_49, Rita130\_49
- Track 39 : Serendipitous\_49
- Track 40 : Suigeneris\_50, Donny\_50
- Track 41 : 39HC\_043, 40BC\_043, Hosp\_041
- Track 42 : KayaCho\_43
- Track 43 : ForDig\_44, Jolie1\_043
- Track 44 : Saguaro\_51
- Track 45 : Thonko\_48
- Track 46 : Knocker\_51
- Track 47 : Quesadilla\_51
- Track 48 : PenguinLover67\_51
- Track 49 : Rinkes\_50
- Track 50 : CRB2\_51
- Track 51 : Funsized\_53
- Track 52 : Widow\_29, Puppies\_29
- Track 53 : Trine\_28
- Track 54 : Morrissey\_30
- Track 55 : Mahdia\_29
- Track 56 : Gustav\_29
- Track 57 : MossRose\_46, Yeshua\_46, AnarQue\_46, CloverMinnie\_46, MakoManhole\_46, Wooper\_46, CaiB\_46
- Track 58 : Coldpizza\_45
- Track 59 : Sour\_48
- Track 60 : Evaa\_43
- Track 61 : NHagos\_44, AksarBAT\_44
- Track 62 : Sisko\_43, AnClar\_44, Yago84\_43
- Track 63 : Ligma\_43, Fresco\_43, Shatter\_43, Axumite\_43
- Track 64 : Mariokart\_43
- Track 65 : LittleMunchkin\_45
- Track 66 : BiggityBass\_43
- Track 67 : CharlottesWeb\_43
- Track 68 : BobRoss2024\_42
- Track 69 : EmiRose\_29
- Track 70 : Pine5\_41
- Track 71 : TPA2\_56

***Summary of Final Annotations (See graph section above for start numbers):***

The start number called the most often in the published annotations is 23, it was called in 316 of the 422 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• 39HC\_043, 40BC\_043, ABU\_51, AbsoluteMadLad\_49, Acadian\_50, Adriana\_51, Aelin\_49, Ahwei\_44, AlanGrant\_47, AltPhacts\_50, Altwerkus\_49, Anderson\_50, Andre\_51, AngelCake\_49, Antihero\_44, Antonia\_49, Apex\_46, Apizium\_50, Ashraf\_50, Austelle\_46, Badfish\_51, Bae\_49, Banjo\_49, Basato\_51, BatteryCK\_49, Beaglebox\_49, BirdsNest\_52, Bishoperium\_49, BlackStallion\_51, BlueHusk\_50, Bluephacebaby\_49, BobbyK\_46, Boehler\_50, Brilliant\_50, BrownCNA\_47, Buckeye\_50, Burr\_49, CRB2\_51, CamL\_50, CampRoach\_51, Cannibal\_50, Carthage\_48, Caspiboi\_51, Chaelin\_50, Chah\_52, Charles1\_50, CharlieGBrown\_49, CheetO\_50, Cher\_49, Childish\_49, Chipette\_51, Chorkpop\_50, ChrisnMich\_45, Chunky\_50, Chute\_49, Cobra\_50, Colbert\_50, Coletti\_49, Cooper\_46, Cornbread\_51, Cornobble\_49, Cosmolli16\_49, Craff\_51, Crownjwl\_50, DaddyDaniels\_50, Daffy\_50, Daka\_51, Dati\_50, DelRivs\_49, Derpp\_49, Dice\_49, DigitDog\_49, Dingo\_50, Dione\_49, DirtJuice\_50, Doddsville\_50, DoesntMatter\_49, DonSanchon\_49, Donny\_50, DuchessDung\_49, Duggie\_49, Durga\_51, EastView9101\_48, ElvisPhasley\_53, Emiris\_51, EmpTee\_50, Epah\_44, Eremos\_50, Etaye\_50, Eugenia\_50, Fanaw\_44, Fang\_51, FluffyNinja\_51, ForDig\_44, Fortunato\_46, Fozzie\_49, Frankicide\_50, Frederick\_46, Freya\_49, FriarPreacher\_49, Fringe\_51, FugateOSU\_49, Funsized\_53, Gareth\_49, GeneCoco\_50, GinPorsche\_44, Giraffe\_50, Gophee\_50, Grand2040\_49, Gwennie1\_50, Gwilliam\_50, Gyarad\_0050, HSavage\_50, Haimas\_50, Haleema\_49, Hally898\_44, Hamish\_50, Hangman\_45, Hartsy\_50, Harvey\_50, Hashim76\_52, Heath\_44, Held\_50, HenryJackson\_49, Hertubise\_50, Hetaeria\_50, HighStump\_50, Hocus\_49, Horchata\_50, Hosp\_041, Hydro\_45, ImtiyazSitla\_50, Imvubu\_42, Inchworm\_51, Indlovu\_47, Inverness\_50, Iridessa\_51, Iridoclysis\_50, IsaacEli\_51, JAMaL\_45, JDog\_49, JacAttac\_51, JaguarMi\_45, JakeO\_49, JangoPhett\_50, Jesabah\_50, Jillium\_49, Jiminy\_49, Jiraiya\_49, Jolie1\_043, KLucky39\_50, Kahve\_49, Kailash\_50, KarasumaRum\_50, Katniss\_51, KayaCho\_43, Keitherie\_50, Khan1\_50, Kikipoo\_51, Kimbrough\_50, KingTut\_41, KingVeVeVe\_50, KlimbOn\_50, Kloppinator\_51, Knocker\_51, Kwadwo\_49, Kwksand96\_49, Labeouficaum\_49, Lambano\_44, LasagnaCat\_51, Lasso\_50, LeeLot\_50, Lego3393\_49, Legolas\_50, LeiMonet\_51, LemonSlice\_50, LilMcDreamy\_47, Lolalove\_46, Longacauda\_49, Lopsy\_49, LostAndPhound\_49, LuckyMarjie\_49, Lulumae\_49, Lulwa\_50, Lumine\_49, MRabcd\_49, Mag7\_49, Magic8\_50, Magpie\_44, Mana\_49, Manad\_50, Maru\_49, Maskar\_50, Matalotodo\_50, Mcshane\_49, Mecca\_49, Megamind20\_50, Megatron\_51, Melc17\_50, MelsMeow\_50, Mesh1\_50, Mesmerelda\_51, MichaelPhcott\_49, Mikota\_50, MiniBoss\_50, MitKao\_50, Mithril\_45, Morgushi\_50, Morty\_51, Mosaic\_49, MrPhizzler\_49, Mudslide\_45, Mulan\_50, Murdoc\_50, Mutante\_49, Mysterious\_50, Nacho\_0051, Nanao\_44, Nangang\_49, Nathan\_51, Nehemiah\_49, Newman\_50, Nicole21\_50, Nigel\_44, Numberten\_50, Nyala\_49, OSmaximus\_51, Olak\_49, Oline\_49, Olive\_50, OliverWalter\_50, Omniscient\_50, Oosterbaan\_50, Orfeu\_49, Orion\_51, Orwigg\_49, PG1\_51, Pacifista\_49, PenguinLover67\_51, Phamished\_51, Phareon\_50, PhatCats2014\_51, PhatLouie\_50, Phelemich\_48, PhenghisKhan\_49, Pherdinand\_51, Phergie\_50, Phipps\_50, Phleuron\_49, PhrankReynolds\_48, PhrodoBaggins\_50, Phunky\_50, Piglet\_0050, PinheadLarry\_50, Pinkman\_49, Pipsqueak\_50, Placalicious\_49, Plata\_50, Plmatters\_50, Podrick\_50, Pops\_50, Poster\_44, Potter\_49, Prickles\_50, Prince\_45, ProfessorX\_50, Puhltonio\_50, QueenBeane\_50, QueenPie\_44, Quesadilla\_51, Quisquilliae\_50, RawrgerThat\_46, RedMaple\_50, Reprobate\_49, Rich\_48, Ricotta\_49, Riggan\_50, Rimu\_52, Rinkes\_50, Rita130\_49, Riverton\_49, Robyn\_49, Roliet\_50, Roscoe\_51, Roy17\_50, SDcharge11\_50, Saguaro\_51, Samaymay\_50, SassyCat97\_49, Schadenfreude\_49, Schueller\_49, Scoot17C\_51, Scrick\_50,

Selr12\_50, Serendipitous\_49, Serendipity\_50, Serpentine\_0050, Sheila\_50, Shenyu\_49, ShiVal\_50, Sigman\_51, SilverBell\_50, Simielle\_49, SirBeauregard\_50, SirJeffery\_49, Skippy\_50, Slatt\_50, Soile\_50, Solosis\_49, Sophia\_49, Soto\_50, Spartan300\_50, Squid\_50, Squiggle\_50, Stinger\_44, StinkyVeggy\_50, Struggle\_49, Suffolk\_50, Suigeneris\_50, Surely\_50, Swiphy\_52, Swish\_51, TallGrassMM\_50, Telesworld\_49, Thonko\_48, Thora\_50, ThreeOh3D2\_51, Thunderbird\_49, Timmi\_49, TomBombadil\_50, Tomlarah\_50, Toni\_49, TooFast2Furius\_53, Tooj\_50, True\_49, Trypo\_51, TyrionL\_49, UAch1\_50, UncleHowie\_50, Usavi\_50, Vaishali24\_49, Valjean\_50, Vaticameos\_46, Veritas\_49, Vincenzo\_46, VioletZ\_47, Virapocalypse\_50, Virgeve\_49, Vista\_50, Vivaldi\_51, Vortex\_50, Waleliano\_45, Wallhey\_49, Waterdiva\_50, Weher20\_50, Windsor\_49, Xavier\_49, Xincheng\_44, Yoshand\_51, YouGoGlencoco\_50, Zaider\_51, Zelda\_50, Zemanar\_46, Zenteno07\_54, Zonia\_50,

Genes that have the "Most Annotated" start but do not call it:

- 

Genes that do not have the "Most Annotated" start:

- Abinghost\_48, Akoma\_48, AksarBAT\_44, Allegro\_49, AnClar\_44, AnarQue\_46, Arbiter\_48, Ares\_49, Athena\_49, Audrey\_48, Axumite\_43, Baloo\_48, Bananafish\_49, Ben11\_47, Bernardo\_49, BiggityBass\_43, Blocker23\_49, BobRoss2024\_42, Boyle\_49, Briakila\_49, Brownie5\_49, CaiB\_46, Calamitous\_49, Casbah\_47, Causa\_68, ChaChing\_48, Chalmers\_48, Chandler\_48, CharlottesWeb\_43, Chentzyk\_48, CloverMinnie\_46, Coffee\_49, Coldpizza\_45, Compostia\_49, Corofin\_48, Daisy\_48, Deenasa\_48, Devonte\_48, Eaglehorse\_49, EmiRose\_29, Evaa\_43, Faze9\_48, FrenchFry\_49, Fresco\_43, Gadget\_49, Gervas\_48, Glass\_49, GlenHope\_49, Glubnar\_48, Godines\_49, Gustav\_29, Halfpint\_47, HarveySr\_48, Heathcliff\_48, Hedgerow\_49, Holeinone\_49, ItsyBitsy1\_49, Jackstina\_45, Kaleb\_49, Kamiyu\_48, Kheth\_49, Kolhan\_49, Kronus\_47, Lars\_49, Laurie\_48, Lephleur\_49, LestyG\_48, Ligma\_43, LilSmirk\_49, LittleMunchkin\_45, LizLemon\_49, Mahdia\_29, MakoManhole\_46, Mariokart\_43, Marley1013\_48, Marlia\_48, MasterPo\_49, MmasiCarm\_48, Morrissey\_30, Mortcellus\_47, Morty007\_48, MossRose\_46, NHagos\_44, Neos5\_48, Nozo\_48, Obutu\_48, Olivio\_47, Opia\_49, OrangeOswald\_48, Phaedrus\_46, Phantasmagoria\_49, Phayeta\_49, Philly\_47, Phlyer\_48, Pine5\_41, Pipefish\_50, PrinceCharming\_49, Puppies\_29, Qyrzula\_46, RagingRooster\_48, Rhinoforte\_49, Rita1961\_48, RomaT\_48, Rosebush\_48, Sabella\_48, Shatter\_43, Shenandoah\_48, Sisko\_43, SlippinJimmy\_48, Sour\_48, StAugustine\_64, SwainyDoc\_48, SynergyX\_48, TA17A\_50, TPA2\_56, Tinciduntolum\_50, TinyTerror\_48, Tres\_49, Trine\_28, Tydolla\_48, Vic9\_00048, West99\_49, Widow\_29, Wooper\_46, Yago84\_43, Yahalom\_48, Yeshua\_46, Yinz\_48,

### Summary by start number:

Start 23:

- Found in 365 of 493 ( 74.0% ) of genes in pham
- Manual Annotations of this start: 316 of 422
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC\_043 (B6), 40BC\_043 (B6), ABU\_51 (B1), AbsoluteMadLad\_49 (B1), Acadian\_50 (B5), Adriana\_51 (B1), Aelin\_49 (B1), Ahwei\_44 (B4), AlanGrant\_47 (B4), AltPhacts\_50 (B1), Altwerkus\_49 (B1), Anderson\_50 (B1), Andre\_51 (B1), AngelCake\_49 (B1), Antihero\_44 (B4), Antonia\_49 (B1), Apex\_46 (B4), Apizium\_50 (B1), Ashraf\_50 (B1), Austelle\_46 (B4), Badfish\_51 (B1), Bae\_49 (B5), Banjo\_49 (B1), Basato\_51 (B1), BatteryCK\_49 (B1),

Beaglebox\_49 (B1), BirdsNest\_52 (B13), Bishoperium\_49 (B1), BlackStallion\_51 (B1), BlueHusk\_50 (B1), Bluephacebaby\_49 (B1), BobbyK\_46 (B4), Boehler\_50 (B1), Brilliant\_50 (B1), BrownCNA\_47 (B4), Buckeye\_50 (B1), Burr\_49 (B1), CRB2\_51 (B9), CamL\_50 (B1), CampRoach\_51 (B1), Cannibal\_50 (B1), Carthage\_48 (B1), Caspiboi\_51 (B1), Chaelin\_50 (B1), Chah\_52 (B1), Charles1\_50 (B1), CharlieGBrown\_49 (B1), CheetO\_50 (B1), Cher\_49 (B1), Childish\_49 (B1), Chipette\_51 (B1), Chorkpop\_50 (B1), ChrisnMich\_45 (B4), Chunky\_50 (B1), Chute\_49 (B1), Cobra\_50 (B1), Colbert\_50 (B1), Coletti\_49 (B1), Cooper\_46 (B4), Cornbread\_51 (B1), Cornobble\_49 (B1), Cosmolli16\_49 (B1), Craff\_51 (B1), Crownjwl\_50 (B1), DaddyDaniels\_50 (B1), Daffy\_50 (B1), Daka\_51 (B1), Dati\_50 (B1), DelRivs\_49 (B1), Derpp\_49 (B1), Dice\_49 (B1), DigitDog\_49 (B5), Dingo\_50 (B1), Dione\_49 (B1), DirtJuice\_50 (B1), Doddsville\_50 (B1), DoesntMatter\_49 (B1), DonSanchon\_49 (B1), Donny\_50 (B5), DuchessDung\_49 (B1), Duggie\_49 (B1), Durga\_51 (B1), EastView9101\_48 (B5), ElvisPhasley\_53 (B1), Emiris\_51 (B1), EmpTee\_50 (B1), Epah\_44 (B4), Eremos\_50 (B1), Etaye\_50 (B1), Eugenia\_50 (B1), Fanaw\_44 (B4), Fang\_51 (B1), FluffyNinja\_51 (B1), ForDig\_44 (B6), Fortunato\_46 (B4), Fozzie\_49 (B1), Frankicide\_50 (B1), Frederick\_46 (B4), Freya\_49 (B1), FriarPreacher\_49 (B1), Fringe\_51 (B1), FugateOSU\_49 (B1), Funsized\_53 (B9), Gareth\_49 (B1), GeneCoco\_50 (B1), GinPorsche\_44 (B4), Giraffe\_50 (B1), Gophee\_50 (B1), Grand2040\_49 (B1), Gwennie1\_50 (B1), Gwilliam\_50 (B1), Gyarad\_0050 (B1), HSavage\_50 (B1), Haimas\_50 (B1), Haleema\_49 (B1), Hally898\_44 (B4), Hamish\_50 (B1), Hangman\_45 (B4), Hartsy\_50 (B1), Harvey\_50 (B1), Hashim76\_52 (B13), Heath\_44 (B4), Held\_50 (B1), HenryJackson\_49 (B1), Hertubise\_50 (B1), Hetaeria\_50 (B1), HighStump\_50 (B1), Hocus\_49 (B1), Horchata\_50 (B1), Hosp\_041 (B6), Hydro\_45 (B4), ImtiyazSitla\_50 (B1), Imvubu\_42 (B10), Inchworm\_51 (B1), Indlovu\_47 (B11), Inverness\_50 (B1), Iridessa\_51 (B1), Iridoclysis\_50 (B1), IsaacEli\_51 (B1), JAMA\_L\_45 (B4), JDog\_49 (B1), JacAttac\_51 (B1), JaguarMi\_45 (B4), JakeO\_49 (B1), JangoPhett\_50 (B1), Jesabah\_50 (B1), Jillium\_49 (B1), Jiminy\_49 (B1), Jiraiya\_49 (B1), Jolie1\_043 (B6), KLucky39\_50 (B1), Kahve\_49 (B1), Kailash\_50 (B1), KarasumaRum\_50 (B5), Katniss\_51 (B1), KayaCho\_43 (B6), Keitherie\_50 (B1), Khan1\_50 (B1), Kikipoo\_51 (B1), Kimbrough\_50 (B1), KingTut\_41 (B1), KingVeVeVe\_50 (B1), KlimbOn\_50 (B1), Kloppinator\_51 (B1), Knocker\_51 (B9), Kwadwo\_49 (B1), Kwksand96\_49 (B1), Labeouficaum\_49 (B1), Lambano\_44 (B4), LasagnaCat\_51 (B1), Lasso\_50 (B1), LeeLot\_50 (B1), Lego3393\_49 (B1), Legolas\_50 (B1), LeiMonet\_51 (B1), LemonSlice\_50 (B1), LilMcDreamy\_47 (B12), Lolalove\_46 (B4), Longacauda\_49 (B1), Lopsy\_49 (B1), LostAndPhound\_49 (B1), LuckyMarjie\_49 (B1), Lulumae\_49 (B1), Lulwa\_50 (B1), Lumine\_49 (B1), MRabcd\_49 (B1), Mag7\_49 (B1), Magic8\_50 (B1), Magpie\_44 (B4), Mana\_49 (B1), Manad\_50 (B1), Maru\_49 (B1), Maskar\_50 (B1), Matalotodo\_50 (B1), Mcshane\_49 (B1), Mecca\_49 (B1), Megamind20\_50 (B1), Megatron\_51 (B1), Melc17\_50 (B1), MelsMeow\_50 (B1), Mesh1\_50 (B1), Mesmerelda\_51 (B1), MichaelPhcott\_49 (B1), Mikota\_50 (B1), MiniBoss\_50 (B1), MitKao\_50 (B1), Mithril\_45 (B4), Morgushi\_50 (B1), Morty\_51 (B1), Mosaic\_49 (B1), MrPhizzler\_49 (B1), Mudslide\_45 (B4), Mulan\_50 (B1), Murdoc\_50 (B1), Mutante\_49 (B1), Mysterious\_50 (B5), Nacho\_0051 (B1), Nanao\_44 (B4), Nangang\_49 (B5), Nathan\_51 (B1), Nehemiah\_49 (B5), Newman\_50 (B1), Nicole21\_50 (B1), Nigel\_44 (B4), Numberten\_50 (B1), Nyala\_49 (B1), OSmaximus\_51 (B1), Olak\_49 (B1), Oline\_49 (B1), Olive\_50 (B1), OliverWalter\_50 (B1), Omniscient\_50 (B1), Oosterbaan\_50 (B1), Orfeu\_49 (B1), Orion\_51 (B1), Orwigg\_49 (B1), PG1\_51 (B1), Pacifista\_49 (B1), PenguinLover67\_51 (B9), Phamished\_51 (B1), Phareon\_50 (B1), PhatCats2014\_51 (B1), PhatLouie\_50 (B1), Phelemich\_48 (B5), PhenghisKhan\_49 (B1), Pherdinand\_51 (B1), Phergie\_50 (B1), Phipps\_50 (B1), Phleuron\_49 (B1), PhrankReynolds\_48 (B1), PhrodoBaggins\_50 (B1), Phunky\_50 (B1), Piglet\_0050



(B1), PinheadLarry\_50 (B1), Pinkman\_49 (B1), Pipsqueak\_50 (B1), Placalicious\_49 (B1), Plata\_50 (B1), Plmatters\_50 (B1), Podrick\_50 (B1), Pops\_50 (B1), Poster\_44 (B4), Potter\_49 (B1), Prickles\_50 (B1), Prince\_45 (B4), ProfessorX\_50 (B1), Puhltonio\_50 (B1), QueenBeane\_50 (B1), QueenPie\_44 (B4), Quesadilla\_51 (B9), Quisquiliae\_50 (B1), RawrgerThat\_46 (B4), RedMaple\_50 (B1), Reprobate\_49 (B5), Rich\_48 (B5), Ricotta\_49 (B1), Riggan\_50 (B1), Rimu\_52 (B1), Rinkes\_50 (B9), Rita130\_49 (B5), Riverton\_49 (B1), Robyn\_49 (B1), Roliet\_50 (B1), Roscoe\_51 (B1), Roy17\_50 (B1), SDcharge11\_50 (B1), Saguaro\_51 (B7), Samaymay\_50 (B1), SassyCat97\_49 (B1), Schadenfreude\_49 (B1), Schueller\_49 (B1), Scoot17C\_51 (B1), Scrick\_50 (B1), Selr12\_50 (B1), Serendipitous\_49 (B5), Serendipity\_50 (B1), Serpentine\_0050 (B1), Sheila\_50 (B1), Shenyu\_49 (B5), ShiVal\_50 (B1), Sigman\_51 (B1), SilverBell\_50 (B1), Simielle\_49 (B1), SirBeauregard\_50 (B1), SirJeffery\_49 (B5), Skippy\_50 (B1), Slatt\_50 (B1), Soile\_50 (B1), Solosis\_49 (B1), Sophia\_49 (B1), Soto\_50 (B1), Spartan300\_50 (B1), Squid\_50 (B1), Squiggle\_50 (B1), Stinger\_44 (B4), StinkyVeggy\_50 (B5), Struggle\_49 (B1), Suffolk\_50 (B1), Suigeneris\_50 (B5), Surely\_50 (B1), Swiphy\_52 (B1), Swish\_51 (B1), TallGrassMM\_50 (B1), Telesworld\_49 (B1), Thonko\_48 (B8), Thora\_50 (B1), ThreeOh3D2\_51 (B1), Thunderbird\_49 (B1), Timmi\_49 (B1), TomBombadil\_50 (B1), Tomlarah\_50 (B1), Toni\_49 (B1), TooFast2Furious\_53 (B1), Tooj\_50 (B1), True\_49 (B1), Trypo\_51 (B1), TyrionL\_49 (B1), UAch1\_50 (B1), UncleHowie\_50 (B1), Usavi\_50 (B1), Vaishali24\_49 (B1), Valjean\_50 (B1), Vaticameos\_46 (B1), Veritas\_49 (B1), Vincenzo\_46 (B4), VioletZ\_47 (B4), Virapocalypse\_50 (B1), Virgeve\_49 (B1), Vista\_50 (B1), Vivaldi\_51 (B1), Vortex\_50 (B1), Waleliano\_45 (B4), Wallhey\_49 (B1), Waterdiva\_50 (B1), Weher20\_50 (B1), Windsor\_49 (B1), Xavier\_49 (B1), Xincheng\_44 (B4), Yoshand\_51 (B1), YouGoGlencoco\_50 (B1), Zaider\_51 (B1), Zelda\_50 (B1), Zemanar\_46 (B4), Zenteno07\_54 (B13), Zonia\_50 (B1),

#### Start 24:

- Found in 5 of 493 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 5 of 422
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gustav\_29 (CD), Mahdia\_29 (CD), Morrissey\_30 (CD), Puppies\_29 (CD), Widow\_29 (CD),

#### Start 25:

- Found in 58 of 493 ( 11.8% ) of genes in pham
- Manual Annotations of this start: 46 of 422
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abinghost\_48 (B3), Akoma\_48 (B3), Athena\_49 (B3), Audrey\_48 (B3), Baloo\_48 (B3), Ben11\_47 (B3), Bernardo\_49 (B3), Briakila\_49 (B3), Casbah\_47 (B3), ChaChing\_48 (B3), Chalmers\_48 (B3), Chandler\_48 (B3), Chentzyk\_48 (B3), Coldpizza\_45 (DR), Compostia\_49 (B3), Corofin\_48 (B3), Daisy\_48 (B3), Deenasa\_48 (B3), Devonte\_48 (B3), Evaa\_43 (DR), Gadget\_49 (B3), Gervas\_48 (B3), GlenHope\_49 (B3), Glubnar\_48 (B3), Halfpint\_47 (B3), HarveySr\_48 (B3), Heathcliff\_48 (B3), Jackstina\_45 (B3), Kamiyu\_48 (B3), Kronus\_47 (B3), LestyG\_48 (B3), Marley1013\_48 (B3), Marlia\_48 (B3), MmasiCarm\_48 (B3), Mortcellus\_47 (B3), Morty007\_48 (B3), Neos5\_48 (B3), Nozo\_48 (B3), Obutu\_48 (B3), Olivio\_47 (B3), OrangeOswald\_48 (B3), Phaedrus\_46 (B3), Phayeta\_49 (B3), Philly\_47 (B3), Phlyer\_48 (B3), Pine5\_41 (singleton), Pipefish\_50 (B3), RagingRooster\_48 (B3), Rita1961\_48 (B3), RomaT\_48 (B3), Shenandoah\_48 (B3), SlippinJimmy\_48 (B3), SwainyDoc\_48 (B3), SynergyX\_48 (B3), TinyTerror\_48 (B3), Tydolla\_48 (B3), Yahalom\_48 (B3), Yinz\_48 (B3),

Start 27:

- Found in 1 of 493 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 422
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sour\_48 (DR),

Start 28:

- Found in 1 of 493 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 422
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EmiRose\_29 (singleton),

Start 29:

- Found in 61 of 493 ( 12.4% ) of genes in pham
- Manual Annotations of this start: 51 of 422
- Called 98.4% of time when present
- Phage (with cluster) where this start called: AksarBAT\_44 (DR), Allegro\_49 (B2), AnClar\_44 (DR), AnarQue\_46 (DR), Arbiter\_48 (B2), Ares\_49 (B2), Axumite\_43 (DR), Bananafish\_49 (B2), BiggityBass\_43 (DR), Blocker23\_49 (B2), BobRoss2024\_42 (DR), Boyle\_49 (B2), Brownie5\_49 (B2), CaiB\_46 (DR), Calamitous\_49 (B2), CharlottesWeb\_43 (DR), CloverMinnie\_46 (DR), Coffee\_49 (B2), Eaglehorse\_49 (B2), Faze9\_48 (B2), FrenchFry\_49 (B2), Fresco\_43 (DR), Glass\_49 (B2), Godines\_49 (B2), Hedgerow\_49 (B2), Holeinone\_49 (B2), ItsyBitsy1\_49 (B2), Kaleb\_49 (B2), Kheth\_49 (B2), Kolhan\_49 (B2), Lars\_49 (B2), Laurie\_48 (B2), Lephleur\_49 (B2), Ligma\_43 (DR), LilSmirk\_49 (B2), LittleMunchkin\_45 (DR), LizLemon\_49 (B2), MakoManhole\_46 (DR), Mariokart\_43 (DR), MasterPo\_49 (B2), MossRose\_46 (DR), NHagos\_44 (DR), Opia\_49 (B2), Phantasmagoria\_49 (B2), PrinceCharming\_49 (B2), Qyrzula\_46 (B2), Rhinoforte\_49 (B2), Rosebush\_48 (B2), Sabella\_48 (B2), Shatter\_43 (DR), Sisko\_43 (DR), TA17A\_50 (B2), TPA2\_56 (singleton), Tinciduntolum\_50 (B2), Tres\_49 (B2), Vic9\_00048 (B2), West99\_49 (B2), Wooper\_46 (DR), Yago84\_43 (DR), Yeshua\_46 (DR),

Start 31:

- Found in 3 of 493 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 422
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Trine\_28 (CD),

Start 33:

- Found in 330 of 493 ( 66.9% ) of genes in pham
- Manual Annotations of this start: 1 of 422
- Called 0.6% of time when present
- Phage (with cluster) where this start called: Causa\_68 (AI), StAugustine\_64 (AI),

**Summary by clusters:**

There are 17 clusters represented in this pham: singleton, B10, AI, B8, B3, CD, B4, B5, B6, B7, B12, B1, B2, B11, DR, B9, B13,

Info for manual annotations of cluster AI:

- Start number 33 was manually annotated 1 time for cluster AI.

Info for manual annotations of cluster B1:

- Start number 23 was manually annotated 267 times for cluster B1.

Info for manual annotations of cluster B10:

- Start number 23 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 23 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 23 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 23 was manually annotated 3 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 29 was manually annotated 34 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 25 was manually annotated 45 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 23 was manually annotated 25 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 23 was manually annotated 9 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 23 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B7:

- Start number 23 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 23 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 23 was manually annotated 6 times for cluster B9.

Info for manual annotations of cluster CD:

- Start number 24 was manually annotated 5 times for cluster CD.
- Start number 31 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster DR:

- Start number 25 was manually annotated 1 time for cluster DR.
- Start number 27 was manually annotated 1 time for cluster DR.
- Start number 29 was manually annotated 17 times for cluster DR.

### ***Gene Information:***

Gene: 39HC\_043 Start: 42090, Stop: 41461, Start Num: 23

Candidate Starts for 39HC\_043:

(8, 42204), (Start: 23 @42090 has 316 MA's), (50, 41889), (51, 41886), (52, 41880), (56, 41856), (74, 41784),

Gene: 40BC\_043 Start: 42090, Stop: 41461, Start Num: 23

Candidate Starts for 40BC\_043:

(8, 42204), (Start: 23 @42090 has 316 MA's), (50, 41889), (51, 41886), (52, 41880), (56, 41856), (74, 41784),

Gene: ABU\_51 Start: 43912, Stop: 43292, Start Num: 23

Candidate Starts for ABU\_51:

(Start: 23 @43912 has 316 MA's), (Start: 33 @43816 has 1 MA's), (50, 43714), (51, 43711), (52, 43705), (56, 43681), (59, 43672), (68, 43639), (74, 43612), (99, 43480), (100, 43477), (108, 43417),

Gene: Abinghost\_48 Start: 43205, Stop: 42660, Start Num: 25

Candidate Starts for Abinghost\_48:

(Start: 25 @43205 has 46 MA's), (45, 43055), (67, 42968), (71, 42953), (73, 42941), (83, 42911), (92, 42890), (98, 42851), (100, 42845), (101, 42836), (105, 42809),

Gene: AbsoluteMadLad\_49 Start: 43789, Stop: 43169, Start Num: 23

Candidate Starts for AbsoluteMadLad\_49:

(Start: 23 @43789 has 316 MA's), (Start: 33 @43693 has 1 MA's), (50, 43591), (51, 43588), (52, 43582), (56, 43558), (59, 43549), (68, 43516), (74, 43489), (99, 43357), (100, 43354), (108, 43294),

Gene: Acadian\_50 Start: 44698, Stop: 44096, Start Num: 23

Candidate Starts for Acadian\_50:

(Start: 23 @44698 has 316 MA's), (34, 44578), (51, 44470), (52, 44464), (56, 44440), (105, 44242), (108, 44218), (116, 44161),

Gene: Adriana\_51 Start: 43910, Stop: 43290, Start Num: 23

Candidate Starts for Adriana\_51:

(Start: 23 @43910 has 316 MA's), (Start: 33 @43814 has 1 MA's), (50, 43712), (51, 43709), (52, 43703), (56, 43679), (59, 43670), (68, 43637), (74, 43610), (99, 43478), (100, 43475), (108, 43415),

Gene: Aelin\_49 Start: 43353, Stop: 42733, Start Num: 23

Candidate Starts for Aelin\_49:

(Start: 23 @43353 has 316 MA's), (Start: 33 @43257 has 1 MA's), (50, 43155), (51, 43152), (52, 43146), (56, 43122), (59, 43113), (68, 43080), (74, 43053), (99, 42921), (100, 42918), (108, 42858),

Gene: Ahwei\_44 Start: 43292, Stop: 42684, Start Num: 23

Candidate Starts for Ahwei\_44:

(Start: 23 @43292 has 316 MA's), (Start: 33 @43202 has 1 MA's), (52, 43088), (56, 43064), (60, 43052), (72, 43001), (91, 42914), (95, 42890), (98, 42869), (99, 42866), (112, 42788),

Gene: Akoma\_48 Start: 43216, Stop: 42671, Start Num: 25

Candidate Starts for Akoma\_48:

(Start: 25 @43216 has 46 MA's), (40, 43087), (45, 43066), (67, 42979), (71, 42964), (73, 42952), (83, 42922), (92, 42901), (98, 42862), (100, 42856), (101, 42847), (105, 42820),

Gene: AksarBAT\_44 Start: 37461, Stop: 36970, Start Num: 29

Candidate Starts for AksarBAT\_44:

(Start: 29 @37461 has 51 MA's), (61, 37281), (64, 37269), (73, 37236), (88, 37203), (90, 37191), (91, 37188), (98, 37149), (105, 37107), (113, 37065), (120, 37002),

Gene: AlanGrant\_47 Start: 44903, Stop: 44286, Start Num: 23

Candidate Starts for AlanGrant\_47:

(Start: 23 @44903 has 316 MA's), (Start: 33 @44801 has 1 MA's), (34, 44792), (47, 44714), (51, 44693), (52, 44687), (56, 44663), (74, 44594), (77, 44570), (78, 44564), (80, 44558), (84, 44540), (93, 44507), (95, 44489), (99, 44465), (100, 44462), (104, 44444), (112, 44387),

Gene: Allegro\_49 Start: 43473, Stop: 42961, Start Num: 29

Candidate Starts for Allegro\_49:

(21, 43563), (Start: 29 @43473 has 51 MA's), (73, 43245), (83, 43215), (88, 43212), (90, 43200), (92, 43194), (98, 43155), (100, 43149), (103, 43134), (120, 43002),

Gene: AltPhacts\_50 Start: 43762, Stop: 43142, Start Num: 23

Candidate Starts for AltPhacts\_50:

(Start: 23 @43762 has 316 MA's), (Start: 33 @43666 has 1 MA's), (36, 43639), (50, 43564), (51, 43561), (52, 43555), (56, 43531), (59, 43522), (68, 43489), (74, 43462), (82, 43420), (99, 43330), (100, 43327), (108, 43267),

Gene: Altwerkus\_49 Start: 43468, Stop: 42848, Start Num: 23

Candidate Starts for Altwerkus\_49:

(Start: 23 @43468 has 316 MA's), (Start: 33 @43372 has 1 MA's), (50, 43270), (51, 43267), (52, 43261), (56, 43237), (59, 43228), (68, 43195), (74, 43168), (99, 43036), (100, 43033), (108, 42973),

Gene: AnClar\_44 Start: 39415, Stop: 38918, Start Num: 29

Candidate Starts for AnClar\_44:

(Start: 29 @39415 has 51 MA's), (61, 39232), (64, 39220), (71, 39199), (73, 39187), (98, 39097), (100, 39091), (105, 39055), (107, 39034), (113, 39013),

Gene: AnarQue\_46 Start: 38876, Stop: 38382, Start Num: 29

Candidate Starts for AnarQue\_46:

(Start: 29 @38876 has 51 MA's), (42, 38777), (53, 38735), (61, 38696), (64, 38684), (71, 38663), (73, 38651), (83, 38615), (93, 38591), (98, 38555), (100, 38549), (108, 38486), (113, 38468),

Gene: Anderson\_50 Start: 43767, Stop: 43147, Start Num: 23

Candidate Starts for Anderson\_50:

(Start: 23 @43767 has 316 MA's), (Start: 33 @43671 has 1 MA's), (50, 43569), (51, 43566), (52, 43560), (56, 43536), (59, 43527), (68, 43494), (74, 43467), (99, 43335), (100, 43332), (108, 43272),

Gene: Andre\_51 Start: 43904, Stop: 43284, Start Num: 23

Candidate Starts for Andre\_51:

(Start: 23 @43904 has 316 MA's), (Start: 33 @43808 has 1 MA's), (50, 43706), (51, 43703), (52, 43697), (56, 43673), (59, 43664), (68, 43631), (74, 43604), (99, 43472), (100, 43469), (108, 43409),

Gene: AngelCake\_49 Start: 43789, Stop: 43169, Start Num: 23

Candidate Starts for AngelCake\_49:

(Start: 23 @43789 has 316 MA's), (Start: 33 @43693 has 1 MA's), (50, 43591), (51, 43588), (52, 43582), (56, 43558), (59, 43549), (68, 43516), (74, 43489), (99, 43357), (100, 43354), (108, 43294),

Gene: Antihero\_44 Start: 43292, Stop: 42684, Start Num: 23

Candidate Starts for Antihero\_44:

(Start: 23 @43292 has 316 MA's), (Start: 33 @43202 has 1 MA's), (52, 43088), (56, 43064), (60, 43052), (72, 43001), (91, 42914), (95, 42890), (98, 42869), (99, 42866), (112, 42788),

Gene: Antonia\_49 Start: 43353, Stop: 42733, Start Num: 23

Candidate Starts for Antonia\_49:

(Start: 23 @43353 has 316 MA's), (Start: 33 @43257 has 1 MA's), (50, 43155), (51, 43152), (52, 43146), (56, 43122), (59, 43113), (68, 43080), (74, 43053), (99, 42921), (100, 42918), (108, 42858),

Gene: Apex\_46 Start: 44536, Stop: 43922, Start Num: 23

Candidate Starts for Apex\_46:

(Start: 23 @44536 has 316 MA's), (Start: 33 @44443 has 1 MA's), (52, 44329), (56, 44305), (60, 44293), (72, 44242), (91, 44155), (95, 44131), (98, 44110), (99, 44107), (111, 44032),

Gene: Apizium\_50 Start: 43668, Stop: 43048, Start Num: 23

Candidate Starts for Apizium\_50:

(Start: 23 @43668 has 316 MA's), (Start: 33 @43572 has 1 MA's), (50, 43470), (51, 43467), (52, 43461), (56, 43437), (59, 43428), (68, 43395), (74, 43368), (99, 43236), (100, 43233), (108, 43173),

Gene: Arbiter\_48 Start: 43576, Stop: 43037, Start Num: 29

Candidate Starts for Arbiter\_48:

(21, 43666), (Start: 29 @43576 has 51 MA's), (73, 43321), (83, 43291), (88, 43288), (90, 43276), (92, 43270), (98, 43231), (100, 43225), (103, 43210), (120, 43078), (125, 43057),

Gene: Ares\_49 Start: 43545, Stop: 43021, Start Num: 29

Candidate Starts for Ares\_49:

(21, 43635), (Start: 29 @43545 has 51 MA's), (73, 43305), (83, 43275), (88, 43272), (90, 43260), (92, 43254), (98, 43215), (100, 43209), (103, 43194), (120, 43062), (125, 43041),

Gene: Ashraf\_50 Start: 43469, Stop: 42849, Start Num: 23

Candidate Starts for Ashraf\_50:

(Start: 23 @43469 has 316 MA's), (Start: 33 @43373 has 1 MA's), (50, 43271), (51, 43268), (52, 43262), (56, 43238), (59, 43229), (68, 43196), (74, 43169), (99, 43037), (100, 43034), (108, 42974),

Gene: Athena\_49 Start: 43963, Stop: 43418, Start Num: 25

Candidate Starts for Athena\_49:

(Start: 25 @43963 has 46 MA's), (40, 43834), (45, 43813), (67, 43726), (71, 43711), (73, 43699), (83, 43669), (92, 43648), (98, 43609), (100, 43603), (101, 43594), (105, 43567),

Gene: Audrey\_48 Start: 43211, Stop: 42666, Start Num: 25

Candidate Starts for Audrey\_48:

(Start: 25 @43211 has 46 MA's), (40, 43082), (45, 43061), (67, 42974), (71, 42959), (73, 42947), (83, 42917), (92, 42896), (98, 42857), (100, 42851), (101, 42842), (105, 42815),

Gene: Austelle\_46 Start: 44986, Stop: 44372, Start Num: 23

Candidate Starts for Austelle\_46:

(Start: 23 @44986 has 316 MA's), (Start: 33 @44893 has 1 MA's), (52, 44779), (56, 44755), (60, 44743), (72, 44692), (91, 44605), (95, 44581), (98, 44560), (99, 44557), (111, 44482),

Gene: Axumite\_43 Start: 36579, Stop: 36085, Start Num: 29

Candidate Starts for Axumite\_43:

(Start: 29 @36579 has 51 MA's), (73, 36354), (96, 36276), (98, 36264), (105, 36222), (113, 36180), (124, 36099),

Gene: Badfish\_51 Start: 43935, Stop: 43315, Start Num: 23

Candidate Starts for Badfish\_51:

(Start: 23 @43935 has 316 MA's), (Start: 33 @43839 has 1 MA's), (50, 43737), (51, 43734), (52, 43728), (56, 43704), (59, 43695), (68, 43662), (74, 43635), (99, 43503), (100, 43500), (108, 43440),

Gene: Bae\_49 Start: 44576, Stop: 43974, Start Num: 23

Candidate Starts for Bae\_49:

(11, 44687), (Start: 23 @44576 has 316 MA's), (34, 44456), (51, 44348), (52, 44342), (56, 44318), (99, 44159), (105, 44120), (108, 44096), (114, 44045),

Gene: Baloo\_48 Start: 43214, Stop: 42669, Start Num: 25

Candidate Starts for Baloo\_48:

(Start: 25 @43214 has 46 MA's), (40, 43085), (45, 43064), (67, 42977), (71, 42962), (73, 42950), (83, 42920), (92, 42899), (98, 42860), (100, 42854), (101, 42845), (105, 42818),

Gene: Bananafish\_49 Start: 43479, Stop: 42955, Start Num: 29

Candidate Starts for Bananafish\_49:

(21, 43569), (Start: 29 @43479 has 51 MA's), (73, 43239), (83, 43209), (88, 43206), (90, 43194), (92, 43188), (98, 43149), (100, 43143), (103, 43128), (120, 42996), (125, 42975),

Gene: Banjo\_49 Start: 43466, Stop: 42846, Start Num: 23

Candidate Starts for Banjo\_49:

(Start: 23 @43466 has 316 MA's), (Start: 33 @43370 has 1 MA's), (50, 43268), (51, 43265), (52, 43259), (56, 43235), (59, 43226), (68, 43193), (74, 43166), (99, 43034), (100, 43031), (108, 42971),

Gene: Basato\_51 Start: 44051, Stop: 43431, Start Num: 23

Candidate Starts for Basato\_51:

(Start: 23 @44051 has 316 MA's), (Start: 33 @43955 has 1 MA's), (50, 43853), (51, 43850), (52, 43844), (56, 43820), (59, 43811), (68, 43778), (74, 43751), (99, 43619), (100, 43616), (108, 43556),

Gene: BatteryCK\_49 Start: 43409, Stop: 42789, Start Num: 23

Candidate Starts for BatteryCK\_49:

(Start: 23 @43409 has 316 MA's), (Start: 33 @43313 has 1 MA's), (50, 43211), (51, 43208), (52, 43202), (56, 43178), (59, 43169), (68, 43136), (74, 43109), (99, 42977), (100, 42974), (108, 42914),

Gene: Beaglebox\_49 Start: 43487, Stop: 42867, Start Num: 23

Candidate Starts for Beaglebox\_49:

(Start: 23 @43487 has 316 MA's), (Start: 33 @43391 has 1 MA's), (50, 43289), (51, 43286), (52, 43280), (56, 43256), (59, 43247), (68, 43214), (74, 43187), (99, 43055), (100, 43052), (108, 42992),

Gene: Ben11\_47 Start: 43034, Stop: 42489, Start Num: 25

Candidate Starts for Ben11\_47:

(Start: 25 @43034 has 46 MA's), (45, 42884), (67, 42797), (71, 42782), (73, 42770), (83, 42740), (92, 42719), (98, 42680), (100, 42674), (101, 42665), (105, 42638),

Gene: Bernardo\_49 Start: 43760, Stop: 43215, Start Num: 25

Candidate Starts for Bernardo\_49:

(Start: 25 @43760 has 46 MA's), (40, 43631), (45, 43610), (67, 43523), (71, 43508), (73, 43496), (83, 43466), (92, 43445), (98, 43406), (100, 43400), (101, 43391), (105, 43364),

Gene: BiggityBass\_43 Start: 38887, Stop: 38390, Start Num: 29

Candidate Starts for BiggityBass\_43:

(2, 39208), (12, 39031), (Start: 29 @38887 has 51 MA's), (44, 38779), (61, 38704), (63, 38695), (64, 38692), (73, 38659), (94, 38593), (96, 38581), (98, 38569), (105, 38527), (107, 38506), (113, 38485),

Gene: BirdsNest\_52 Start: 43048, Stop: 42431, Start Num: 23

Candidate Starts for BirdsNest\_52:

(Start: 23 @43048 has 316 MA's), (43, 42847), (48, 42820), (56, 42778), (95, 42640), (99, 42616), (108, 42553), (114, 42502),

Gene: Bishoperium\_49 Start: 43481, Stop: 42861, Start Num: 23

Candidate Starts for Bishoperium\_49:

(Start: 23 @43481 has 316 MA's), (Start: 33 @43385 has 1 MA's), (50, 43283), (51, 43280), (52, 43274), (56, 43250), (59, 43241), (68, 43208), (74, 43181), (99, 43049), (100, 43046), (108, 42986),

Gene: BlackStallion\_51 Start: 43941, Stop: 43321, Start Num: 23

Candidate Starts for BlackStallion\_51:

(Start: 23 @43941 has 316 MA's), (Start: 33 @43845 has 1 MA's), (50, 43743), (51, 43740), (52, 43734), (56, 43710), (59, 43701), (68, 43668), (74, 43641), (99, 43509), (100, 43506), (108, 43446),

Gene: Blocker23\_49 Start: 43597, Stop: 43073, Start Num: 29

Candidate Starts for Blocker23\_49:

(21, 43687), (Start: 29 @43597 has 51 MA's), (73, 43357), (83, 43327), (88, 43324), (90, 43312), (92, 43306), (98, 43267), (100, 43261), (120, 43114),

Gene: BlueHusk\_50 Start: 43287, Stop: 42667, Start Num: 23

Candidate Starts for BlueHusk\_50:

(Start: 23 @43287 has 316 MA's), (Start: 33 @43191 has 1 MA's), (50, 43089), (51, 43086), (52, 43080), (56, 43056), (59, 43047), (68, 43014), (74, 42987), (99, 42855), (100, 42852), (108, 42792),

Gene: Bluephacebaby\_49 Start: 43484, Stop: 42864, Start Num: 23

Candidate Starts for Bluephacebaby\_49:

(Start: 23 @43484 has 316 MA's), (Start: 33 @43388 has 1 MA's), (50, 43286), (51, 43283), (52, 43277), (56, 43253), (59, 43244), (68, 43211), (74, 43184), (99, 43052), (100, 43049), (108, 42989),

Gene: BobRoss2024\_42 Start: 36607, Stop: 36095, Start Num: 29

Candidate Starts for BobRoss2024\_42:

(Start: 29 @36607 has 51 MA's), (44, 36493), (57, 36439), (59, 36433), (71, 36388), (73, 36376), (75, 36373), (92, 36319), (96, 36292), (98, 36280), (105, 36238), (113, 36196), (120, 36133),

Gene: BobbyK\_46 Start: 44328, Stop: 43717, Start Num: 23

Candidate Starts for BobbyK\_46:

(Start: 23 @44328 has 316 MA's), (Start: 33 @44238 has 1 MA's), (52, 44124), (56, 44100), (60, 44088), (72, 44037), (91, 43950), (95, 43926), (98, 43905), (99, 43902), (111, 43827),

Gene: Boehler\_50 Start: 43790, Stop: 43170, Start Num: 23

Candidate Starts for Boehler\_50:

(Start: 23 @43790 has 316 MA's), (Start: 33 @43694 has 1 MA's), (50, 43592), (51, 43589), (52, 43583), (56, 43559), (59, 43550), (68, 43517), (74, 43490), (99, 43358), (100, 43355), (108, 43295),

Gene: Boyle\_49 Start: 43612, Stop: 43073, Start Num: 29

Candidate Starts for Boyle\_49:

(21, 43702), (Start: 29 @43612 has 51 MA's), (73, 43357), (83, 43327), (88, 43324), (90, 43312), (92, 43306), (98, 43267), (100, 43261), (103, 43246), (120, 43114), (125, 43093),

Gene: Briakila\_49 Start: 43982, Stop: 43437, Start Num: 25

Candidate Starts for Briakila\_49:

(Start: 25 @43982 has 46 MA's), (45, 43832), (67, 43745), (71, 43730), (73, 43718), (83, 43688), (92, 43667), (98, 43628), (100, 43622), (101, 43613), (105, 43586),



Gene: Brilliant\_50 Start: 43483, Stop: 42863, Start Num: 23

Candidate Starts for Brilliant\_50:

(Start: 23 @43483 has 316 MA's), (Start: 33 @43387 has 1 MA's), (50, 43285), (51, 43282), (52, 43276), (56, 43252), (59, 43243), (68, 43210), (74, 43183), (99, 43051), (100, 43048), (108, 42988),

Gene: BrownCNA\_47 Start: 44607, Stop: 43996, Start Num: 23

Candidate Starts for BrownCNA\_47:

(Start: 23 @44607 has 316 MA's), (Start: 33 @44517 has 1 MA's), (52, 44403), (56, 44379), (60, 44367), (72, 44316), (91, 44229), (95, 44205), (98, 44184), (99, 44181), (111, 44106), (112, 44103),

Gene: Brownie5\_49 Start: 43628, Stop: 43089, Start Num: 29

Candidate Starts for Brownie5\_49:

(21, 43718), (Start: 29 @43628 has 51 MA's), (73, 43373), (83, 43343), (88, 43340), (90, 43328), (92, 43322), (98, 43283), (100, 43277), (103, 43262), (120, 43130),

Gene: Buckeye\_50 Start: 43804, Stop: 43184, Start Num: 23

Candidate Starts for Buckeye\_50:

(Start: 23 @43804 has 316 MA's), (Start: 33 @43708 has 1 MA's), (50, 43606), (51, 43603), (52, 43597), (56, 43573), (59, 43564), (68, 43531), (74, 43504), (99, 43372), (100, 43369), (108, 43309),

Gene: Burr\_49 Start: 43478, Stop: 42858, Start Num: 23

Candidate Starts for Burr\_49:

(Start: 23 @43478 has 316 MA's), (Start: 33 @43382 has 1 MA's), (50, 43280), (51, 43277), (52, 43271), (56, 43247), (59, 43238), (68, 43205), (74, 43178), (99, 43046), (100, 43043), (108, 42983),

Gene: CRB2\_51 Start: 46714, Stop: 46073, Start Num: 23

Candidate Starts for CRB2\_51:

(Start: 23 @46714 has 316 MA's), (48, 46504), (52, 46486), (56, 46462), (74, 46390), (80, 46354), (86, 46327), (95, 46282), (98, 46261), (108, 46195), (114, 46144),

Gene: CaiB\_46 Start: 38862, Stop: 38368, Start Num: 29

Candidate Starts for CaiB\_46:

(Start: 29 @38862 has 51 MA's), (42, 38763), (53, 38721), (61, 38682), (64, 38670), (71, 38649), (73, 38637), (83, 38601), (93, 38577), (98, 38541), (100, 38535), (108, 38472), (113, 38454),

Gene: Calamitous\_49 Start: 43478, Stop: 42960, Start Num: 29

Candidate Starts for Calamitous\_49:

(21, 43568), (Start: 29 @43478 has 51 MA's), (73, 43244), (83, 43214), (88, 43211), (90, 43199), (92, 43193), (98, 43154), (100, 43148), (103, 43133), (120, 43001),

Gene: CamL\_50 Start: 43773, Stop: 43153, Start Num: 23

Candidate Starts for CamL\_50:

(Start: 23 @43773 has 316 MA's), (Start: 33 @43677 has 1 MA's), (50, 43575), (51, 43572), (52, 43566), (56, 43542), (59, 43533), (68, 43500), (74, 43473), (99, 43341), (100, 43338), (108, 43278),

Gene: CampRoach\_51 Start: 43907, Stop: 43287, Start Num: 23

Candidate Starts for CampRoach\_51:

(Start: 23 @43907 has 316 MA's), (Start: 33 @43811 has 1 MA's), (50, 43709), (51, 43706), (52, 43700), (56, 43676), (59, 43667), (68, 43634), (74, 43607), (99, 43475), (100, 43472), (108, 43412),

Gene: Cannibal\_50 Start: 43756, Stop: 43136, Start Num: 23

Candidate Starts for Cannibal\_50:

(Start: 23 @43756 has 316 MA's), (Start: 33 @43660 has 1 MA's), (50, 43558), (51, 43555), (52, 43549), (56, 43525), (59, 43516), (68, 43483), (74, 43456), (99, 43324), (100, 43321), (108, 43261),

Gene: Carthage\_48 Start: 42703, Stop: 42083, Start Num: 23

Candidate Starts for Carthage\_48:

(Start: 23 @42703 has 316 MA's), (Start: 33 @42607 has 1 MA's), (50, 42505), (51, 42502), (52, 42496), (56, 42472), (59, 42463), (68, 42430), (74, 42403), (99, 42271), (100, 42268), (108, 42208),

Gene: Casbah\_47 Start: 43064, Stop: 42519, Start Num: 25

Candidate Starts for Casbah\_47:

(Start: 25 @43064 has 46 MA's), (45, 42914), (67, 42827), (71, 42812), (73, 42800), (83, 42770), (92, 42749), (98, 42710), (100, 42704), (101, 42695), (105, 42668),

Gene: Caspiboi\_51 Start: 43482, Stop: 42862, Start Num: 23

Candidate Starts for Caspiboi\_51:

(Start: 23 @43482 has 316 MA's), (Start: 33 @43386 has 1 MA's), (50, 43284), (51, 43281), (52, 43275), (56, 43251), (59, 43242), (68, 43209), (74, 43182), (99, 43050), (100, 43047), (108, 42987),

Gene: Causa\_68 Start: 51649, Stop: 51119, Start Num: 33

Candidate Starts for Causa\_68:

(Start: 33 @51649 has 1 MA's), (52, 51529), (65, 51472), (75, 51436), (79, 51409), (80, 51406), (87, 51376), (88, 51373), (98, 51316), (120, 51169),

Gene: ChaChing\_48 Start: 43227, Stop: 42682, Start Num: 25

Candidate Starts for ChaChing\_48:

(Start: 25 @43227 has 46 MA's), (45, 43077), (67, 42990), (71, 42975), (73, 42963), (83, 42933), (92, 42912), (98, 42873), (100, 42867), (101, 42858), (105, 42831),

Gene: Chaelin\_50 Start: 43479, Stop: 42859, Start Num: 23

Candidate Starts for Chaelin\_50:

(Start: 23 @43479 has 316 MA's), (Start: 33 @43383 has 1 MA's), (50, 43281), (51, 43278), (52, 43272), (56, 43248), (59, 43239), (68, 43206), (74, 43179), (99, 43047), (100, 43044), (108, 42984),

Gene: Chah\_52 Start: 43934, Stop: 43314, Start Num: 23

Candidate Starts for Chah\_52:

(Start: 23 @43934 has 316 MA's), (Start: 33 @43838 has 1 MA's), (50, 43736), (51, 43733), (52, 43727), (56, 43703), (59, 43694), (68, 43661), (74, 43634), (99, 43502), (100, 43499), (108, 43439),

Gene: Chalmers\_48 Start: 44019, Stop: 43474, Start Num: 25

Candidate Starts for Chalmers\_48:

(Start: 25 @44019 has 46 MA's), (40, 43890), (45, 43869), (67, 43782), (71, 43767), (73, 43755), (83, 43725), (92, 43704), (98, 43665), (100, 43659), (101, 43650), (105, 43623),

Gene: Chandler\_48 Start: 43995, Stop: 43450, Start Num: 25

Candidate Starts for Chandler\_48:

(Start: 25 @43995 has 46 MA's), (40, 43866), (45, 43845), (67, 43758), (71, 43743), (73, 43731), (83, 43701), (92, 43680), (98, 43641), (100, 43635), (101, 43626), (105, 43599),

Gene: Charles1\_50 Start: 43764, Stop: 43144, Start Num: 23

Candidate Starts for Charles1\_50:

(Start: 23 @43764 has 316 MA's), (Start: 33 @43668 has 1 MA's), (50, 43566), (51, 43563), (52, 43557), (56, 43533), (59, 43524), (68, 43491), (74, 43464), (99, 43332), (100, 43329), (108, 43269),

Gene: CharlieGBrown\_49 Start: 43354, Stop: 42734, Start Num: 23

Candidate Starts for CharlieGBrown\_49:

(Start: 23 @43354 has 316 MA's), (Start: 33 @43258 has 1 MA's), (50, 43156), (51, 43153), (52, 43147), (56, 43123), (59, 43114), (68, 43081), (74, 43054), (99, 42922), (100, 42919), (108, 42859),

Gene: CharlottesWeb\_43 Start: 36404, Stop: 35910, Start Num: 29

Candidate Starts for CharlottesWeb\_43:

(Start: 29 @36404 has 51 MA's), (44, 36299), (61, 36224), (64, 36212), (71, 36191), (73, 36179), (88, 36146), (93, 36125), (96, 36101), (98, 36089), (100, 36083), (105, 36047), (107, 36026), (113, 36005), (124, 35924),

Gene: CheetO\_50 Start: 43796, Stop: 43176, Start Num: 23

Candidate Starts for CheetO\_50:

(Start: 23 @43796 has 316 MA's), (Start: 33 @43700 has 1 MA's), (50, 43598), (51, 43595), (52, 43589), (56, 43565), (59, 43556), (68, 43523), (74, 43496), (99, 43364), (100, 43361), (108, 43301),

Gene: Chentzyk\_48 Start: 43576, Stop: 43031, Start Num: 25

Candidate Starts for Chentzyk\_48:

(Start: 25 @43576 has 46 MA's), (45, 43426), (67, 43339), (71, 43324), (73, 43312), (83, 43282), (92, 43261), (98, 43222), (100, 43216), (101, 43207), (105, 43180),

Gene: Cher\_49 Start: 43501, Stop: 42881, Start Num: 23

Candidate Starts for Cher\_49:

(Start: 23 @43501 has 316 MA's), (Start: 33 @43405 has 1 MA's), (50, 43303), (51, 43300), (52, 43294), (56, 43270), (59, 43261), (68, 43228), (74, 43201), (99, 43069), (100, 43066), (108, 43006),

Gene: Childish\_49 Start: 43504, Stop: 42884, Start Num: 23

Candidate Starts for Childish\_49:

(Start: 23 @43504 has 316 MA's), (Start: 33 @43408 has 1 MA's), (50, 43306), (51, 43303), (52, 43297), (56, 43273), (59, 43264), (68, 43231), (74, 43204), (99, 43072), (100, 43069), (108, 43009),

Gene: Chipette\_51 Start: 43994, Stop: 43374, Start Num: 23

Candidate Starts for Chipette\_51:

(Start: 23 @43994 has 316 MA's), (Start: 33 @43898 has 1 MA's), (50, 43796), (51, 43793), (52, 43787), (56, 43763), (59, 43754), (68, 43721), (74, 43694), (99, 43562), (100, 43559), (108, 43499),

Gene: Chorkpop\_50 Start: 43512, Stop: 42892, Start Num: 23

Candidate Starts for Chorkpop\_50:

(Start: 23 @43512 has 316 MA's), (Start: 33 @43416 has 1 MA's), (50, 43314), (51, 43311), (52, 43305), (56, 43281), (59, 43272), (68, 43239), (74, 43212), (99, 43080), (100, 43077), (108, 43017),

Gene: ChrisnMich\_45 Start: 43294, Stop: 42686, Start Num: 23

Candidate Starts for ChrisnMich\_45:

(Start: 23 @43294 has 316 MA's), (Start: 33 @43204 has 1 MA's), (52, 43090), (56, 43066), (60, 43054), (72, 43003), (95, 42892), (98, 42871), (99, 42868), (112, 42790),

Gene: Chunky\_50 Start: 43800, Stop: 43180, Start Num: 23

Candidate Starts for Chunky\_50:

(Start: 23 @43800 has 316 MA's), (Start: 33 @43704 has 1 MA's), (36, 43677), (50, 43602), (51, 43599), (52, 43593), (56, 43569), (59, 43560), (68, 43527), (74, 43500), (82, 43458), (99, 43368), (100, 43365), (108, 43305),

Gene: Chute\_49 Start: 43828, Stop: 43208, Start Num: 23

Candidate Starts for Chute\_49:

(Start: 23 @43828 has 316 MA's), (Start: 33 @43732 has 1 MA's), (50, 43630), (51, 43627), (52, 43621), (56, 43597), (59, 43588), (68, 43555), (74, 43528), (99, 43396), (100, 43393), (108, 43333),

Gene: CloverMinnie\_46 Start: 38802, Stop: 38308, Start Num: 29

Candidate Starts for CloverMinnie\_46:

(Start: 29 @38802 has 51 MA's), (42, 38703), (53, 38661), (61, 38622), (64, 38610), (71, 38589), (73, 38577), (83, 38541), (93, 38517), (98, 38481), (100, 38475), (108, 38412), (113, 38394),

Gene: Cobra\_50 Start: 43785, Stop: 43165, Start Num: 23

Candidate Starts for Cobra\_50:

(Start: 23 @43785 has 316 MA's), (Start: 33 @43689 has 1 MA's), (50, 43587), (51, 43584), (52, 43578), (56, 43554), (59, 43545), (68, 43512), (74, 43485), (99, 43353), (100, 43350), (108, 43290),

Gene: Coffee\_49 Start: 43587, Stop: 43063, Start Num: 29

Candidate Starts for Coffee\_49:

(21, 43677), (Start: 29 @43587 has 51 MA's), (73, 43347), (83, 43317), (88, 43314), (90, 43302), (92, 43296), (98, 43257), (100, 43251), (103, 43236), (120, 43104),

Gene: Colbert\_50 Start: 43852, Stop: 43232, Start Num: 23

Candidate Starts for Colbert\_50:

(Start: 23 @43852 has 316 MA's), (Start: 33 @43756 has 1 MA's), (50, 43654), (51, 43651), (52, 43645), (56, 43621), (59, 43612), (68, 43579), (74, 43552), (99, 43420), (100, 43417), (108, 43357),

Gene: Coldpizza\_45 Start: 40387, Stop: 39884, Start Num: 25

Candidate Starts for Coldpizza\_45:

(Start: 25 @40387 has 46 MA's), (41, 40282), (73, 40156), (83, 40129), (91, 40111), (98, 40069), (101, 40054), (106, 40024), (113, 39985), (120, 39922),

Gene: Coletti\_49 Start: 43828, Stop: 43208, Start Num: 23

Candidate Starts for Coletti\_49:

(Start: 23 @43828 has 316 MA's), (Start: 33 @43732 has 1 MA's), (50, 43630), (51, 43627), (52, 43621), (56, 43597), (59, 43588), (68, 43555), (74, 43528), (99, 43396), (100, 43393), (108, 43333),

Gene: Compostia\_49 Start: 43643, Stop: 43098, Start Num: 25

Candidate Starts for Compostia\_49:

(Start: 25 @43643 has 46 MA's), (40, 43514), (45, 43493), (67, 43406), (71, 43391), (73, 43379), (83, 43349), (92, 43328), (98, 43289), (100, 43283), (101, 43274), (105, 43247),

Gene: Cooper\_46 Start: 43502, Stop: 42888, Start Num: 23

Candidate Starts for Cooper\_46:

(Start: 23 @43502 has 316 MA's), (Start: 33 @43409 has 1 MA's), (52, 43295), (56, 43271), (74, 43202), (95, 43097), (98, 43076), (99, 43073), (112, 42995),

Gene: Cornbread\_51 Start: 43501, Stop: 42881, Start Num: 23

Candidate Starts for Cornbread\_51:

(Start: 23 @43501 has 316 MA's), (Start: 33 @43405 has 1 MA's), (50, 43303), (51, 43300), (52, 43294), (56, 43270), (59, 43261), (68, 43228), (74, 43201), (99, 43069), (100, 43066), (108, 43006),

Gene: Cornobble\_49 Start: 43342, Stop: 42722, Start Num: 23

Candidate Starts for Cornobble\_49:

(Start: 23 @43342 has 316 MA's), (Start: 33 @43246 has 1 MA's), (50, 43144), (51, 43141), (52, 43135), (56, 43111), (59, 43102), (68, 43069), (74, 43042), (99, 42910), (100, 42907), (108, 42847),

Gene: Corofin\_48 Start: 43238, Stop: 42693, Start Num: 25

Candidate Starts for Corofin\_48:

(Start: 25 @43238 has 46 MA's), (40, 43109), (45, 43088), (67, 43001), (71, 42986), (73, 42974), (83, 42944), (92, 42923), (98, 42884), (100, 42878), (101, 42869), (105, 42842),

Gene: Cosmolli16\_49 Start: 43492, Stop: 42872, Start Num: 23

Candidate Starts for Cosmolli16\_49:

(Start: 23 @43492 has 316 MA's), (Start: 33 @43396 has 1 MA's), (50, 43294), (51, 43291), (52, 43285), (56, 43261), (59, 43252), (68, 43219), (74, 43192), (99, 43060), (100, 43057), (108, 42997),

Gene: Craff\_51 Start: 43920, Stop: 43300, Start Num: 23

Candidate Starts for Craff\_51:

(Start: 23 @43920 has 316 MA's), (Start: 33 @43824 has 1 MA's), (50, 43722), (51, 43719), (52, 43713), (56, 43689), (59, 43680), (68, 43647), (74, 43620), (99, 43488), (100, 43485), (108, 43425),

Gene: Crownjwl\_50 Start: 43561, Stop: 42941, Start Num: 23

Candidate Starts for Crownjwl\_50:

(Start: 23 @43561 has 316 MA's), (Start: 33 @43465 has 1 MA's), (36, 43438), (50, 43363), (51, 43360), (52, 43354), (56, 43330), (59, 43321), (68, 43288), (74, 43261), (82, 43219), (99, 43129), (100, 43126), (108, 43066),

Gene: DaddyDaniels\_50 Start: 43473, Stop: 42853, Start Num: 23

Candidate Starts for DaddyDaniels\_50:

(Start: 23 @43473 has 316 MA's), (Start: 33 @43377 has 1 MA's), (50, 43275), (51, 43272), (52, 43266), (56, 43242), (59, 43233), (68, 43200), (74, 43173), (82, 43131), (99, 43041), (100, 43038), (108, 42978),

Gene: Daffy\_50 Start: 43498, Stop: 42878, Start Num: 23

Candidate Starts for Daffy\_50:

(Start: 23 @43498 has 316 MA's), (Start: 33 @43402 has 1 MA's), (50, 43300), (51, 43297), (52, 43291), (56, 43267), (59, 43258), (68, 43225), (74, 43198), (99, 43066), (100, 43063), (108, 43003),

Gene: Daisy\_48 Start: 43239, Stop: 42694, Start Num: 25

Candidate Starts for Daisy\_48:

(Start: 25 @43239 has 46 MA's), (45, 43089), (67, 43002), (71, 42987), (73, 42975), (83, 42945), (92, 42924), (98, 42885), (100, 42879), (101, 42870), (105, 42843),

Gene: Daka\_51 Start: 43777, Stop: 43157, Start Num: 23

Candidate Starts for Daka\_51:

(Start: 23 @43777 has 316 MA's), (Start: 33 @43681 has 1 MA's), (50, 43579), (51, 43576), (52, 43570), (56, 43546), (59, 43537), (68, 43504), (74, 43477), (99, 43345), (100, 43342), (108, 43282),

Gene: Dati\_50 Start: 43501, Stop: 42881, Start Num: 23

Candidate Starts for Dati\_50:

(Start: 23 @43501 has 316 MA's), (Start: 33 @43405 has 1 MA's), (50, 43303), (51, 43300), (52, 43294), (56, 43270), (59, 43261), (68, 43228), (74, 43201), (99, 43069), (100, 43066), (108, 43006),

Gene: Deenasa\_48 Start: 43974, Stop: 43429, Start Num: 25

Candidate Starts for Deenasa\_48:

(3, 44259), (Start: 25 @43974 has 46 MA's), (45, 43824), (67, 43737), (71, 43722), (73, 43710), (83, 43680), (92, 43659), (98, 43620), (100, 43614), (101, 43605), (105, 43578),

Gene: DelRivs\_49 Start: 43505, Stop: 42885, Start Num: 23

Candidate Starts for DelRivs\_49:

(Start: 23 @43505 has 316 MA's), (Start: 33 @43409 has 1 MA's), (50, 43307), (51, 43304), (52, 43298), (56, 43274), (59, 43265), (68, 43232), (74, 43205), (99, 43073), (100, 43070), (108, 43010),

Gene: Derpp\_49 Start: 43343, Stop: 42723, Start Num: 23

Candidate Starts for Derpp\_49:

(Start: 23 @43343 has 316 MA's), (Start: 33 @43247 has 1 MA's), (50, 43145), (51, 43142), (52, 43136), (56, 43112), (59, 43103), (68, 43070), (74, 43043), (82, 43001), (99, 42911), (100, 42908), (108, 42848),

Gene: Devonte\_48 Start: 43203, Stop: 42658, Start Num: 25

Candidate Starts for Devonte\_48:

(Start: 25 @43203 has 46 MA's), (40, 43074), (45, 43053), (67, 42966), (71, 42951), (73, 42939), (83, 42909), (92, 42888), (98, 42849), (100, 42843), (101, 42834), (105, 42807),

Gene: Dice\_49 Start: 43469, Stop: 42849, Start Num: 23

Candidate Starts for Dice\_49:

(Start: 23 @43469 has 316 MA's), (Start: 33 @43373 has 1 MA's), (50, 43271), (51, 43268), (52, 43262), (56, 43238), (59, 43229), (68, 43196), (74, 43169), (99, 43037), (100, 43034), (108, 42974),

Gene: DigitDog\_49 Start: 44414, Stop: 43812, Start Num: 23

Candidate Starts for DigitDog\_49:

(Start: 23 @44414 has 316 MA's), (34, 44294), (51, 44186), (52, 44180), (56, 44156), (95, 44021), (98, 44000), (105, 43958), (108, 43934), (116, 43877),

Gene: Dingo\_50 Start: 43768, Stop: 43148, Start Num: 23

Candidate Starts for Dingo\_50:

(Start: 23 @43768 has 316 MA's), (Start: 33 @43672 has 1 MA's), (50, 43570), (51, 43567), (52, 43561), (56, 43537), (59, 43528), (68, 43495), (74, 43468), (82, 43426), (99, 43336), (100, 43333), (108, 43273),

Gene: Dione\_49 Start: 43477, Stop: 42857, Start Num: 23

Candidate Starts for Dione\_49:

(Start: 23 @43477 has 316 MA's), (Start: 33 @43381 has 1 MA's), (50, 43279), (51, 43276), (52, 43270), (56, 43246), (59, 43237), (68, 43204), (74, 43177), (99, 43045), (100, 43042), (108, 42982),

Gene: DirtJuice\_50 Start: 43767, Stop: 43147, Start Num: 23

Candidate Starts for DirtJuice\_50:

(Start: 23 @43767 has 316 MA's), (Start: 33 @43671 has 1 MA's), (50, 43569), (51, 43566), (52, 43560), (56, 43536), (59, 43527), (68, 43494), (74, 43467), (99, 43335), (100, 43332), (108, 43272),

Gene: Doddsville\_50 Start: 43497, Stop: 42877, Start Num: 23

Candidate Starts for Doddsville\_50:

(Start: 23 @43497 has 316 MA's), (Start: 33 @43401 has 1 MA's), (50, 43299), (51, 43296), (52, 43290), (56, 43266), (59, 43257), (68, 43224), (74, 43197), (82, 43155), (99, 43065), (100, 43062), (108, 43002),

Gene: DoesntMatter\_49 Start: 43770, Stop: 43150, Start Num: 23

Candidate Starts for DoesntMatter\_49:

(Start: 23 @43770 has 316 MA's), (Start: 33 @43674 has 1 MA's), (50, 43572), (51, 43569), (52, 43563), (56, 43539), (59, 43530), (68, 43497), (74, 43470), (99, 43338), (100, 43335), (108, 43275),

Gene: DonSanchon\_49 Start: 43480, Stop: 42860, Start Num: 23  
Candidate Starts for DonSanchon\_49:  
(Start: 23 @43480 has 316 MA's), (Start: 33 @43384 has 1 MA's), (50, 43282), (51, 43279), (52, 43273), (56, 43249), (59, 43240), (68, 43207), (74, 43180), (99, 43048), (100, 43045), (108, 42985),

Gene: Donny\_50 Start: 44705, Stop: 44103, Start Num: 23  
Candidate Starts for Donny\_50:  
(11, 44816), (Start: 23 @44705 has 316 MA's), (34, 44585), (51, 44477), (52, 44471), (56, 44447), (105, 44249), (108, 44225),

Gene: DuchessDung\_49 Start: 42769, Stop: 42149, Start Num: 23  
Candidate Starts for DuchessDung\_49:  
(Start: 23 @42769 has 316 MA's), (Start: 33 @42673 has 1 MA's), (50, 42571), (51, 42568), (52, 42562), (56, 42538), (59, 42529), (68, 42496), (74, 42469), (82, 42427), (99, 42337), (100, 42334), (108, 42274),

Gene: Duggie\_49 Start: 43499, Stop: 42879, Start Num: 23  
Candidate Starts for Duggie\_49:  
(Start: 23 @43499 has 316 MA's), (Start: 33 @43403 has 1 MA's), (50, 43301), (51, 43298), (52, 43292), (56, 43268), (59, 43259), (68, 43226), (74, 43199), (82, 43157), (99, 43067), (100, 43064), (108, 43004),

Gene: Durga\_51 Start: 43935, Stop: 43315, Start Num: 23  
Candidate Starts for Durga\_51:  
(Start: 23 @43935 has 316 MA's), (Start: 33 @43839 has 1 MA's), (50, 43737), (51, 43734), (52, 43728), (56, 43704), (59, 43695), (68, 43662), (74, 43635), (99, 43503), (100, 43500), (108, 43440),

Gene: Eaglehorse\_49 Start: 43513, Stop: 42989, Start Num: 29  
Candidate Starts for Eaglehorse\_49:  
(21, 43603), (Start: 29 @43513 has 51 MA's), (73, 43273), (83, 43243), (88, 43240), (90, 43228), (92, 43222), (98, 43183), (100, 43177), (103, 43162), (120, 43030), (125, 43009),

Gene: EastView9101\_48 Start: 44355, Stop: 43753, Start Num: 23  
Candidate Starts for EastView9101\_48:  
(11, 44466), (Start: 23 @44355 has 316 MA's), (34, 44235), (51, 44127), (52, 44121), (56, 44097), (105, 43899), (108, 43875),

Gene: ElvisPhasley\_53 Start: 43957, Stop: 43337, Start Num: 23  
Candidate Starts for ElvisPhasley\_53:  
(Start: 23 @43957 has 316 MA's), (Start: 33 @43861 has 1 MA's), (50, 43759), (51, 43756), (52, 43750), (56, 43726), (59, 43717), (68, 43684), (74, 43657), (99, 43525), (100, 43522), (108, 43462),

Gene: EmiRose\_29 Start: 22644, Stop: 22114, Start Num: 28  
Candidate Starts for EmiRose\_29:  
(Start: 28 @22644 has 1 MA's), (73, 22389), (110, 22230),

Gene: Emiris\_51 Start: 43903, Stop: 43283, Start Num: 23  
Candidate Starts for Emiris\_51:  
(Start: 23 @43903 has 316 MA's), (Start: 33 @43807 has 1 MA's), (50, 43705), (51, 43702), (52, 43696), (56, 43672), (59, 43663), (68, 43630), (74, 43603), (99, 43471), (100, 43468), (108, 43408),

Gene: EmpTee\_50 Start: 43783, Stop: 43163, Start Num: 23  
Candidate Starts for EmpTee\_50:

(Start: 23 @43783 has 316 MA's), (Start: 33 @43687 has 1 MA's), (36, 43660), (50, 43585), (51, 43582), (52, 43576), (56, 43552), (59, 43543), (68, 43510), (74, 43483), (82, 43441), (99, 43351), (100, 43348), (108, 43288),

Gene: Epah\_44 Start: 43292, Stop: 42684, Start Num: 23

Candidate Starts for Epah\_44:

(Start: 23 @43292 has 316 MA's), (Start: 33 @43202 has 1 MA's), (52, 43088), (56, 43064), (60, 43052), (72, 43001), (91, 42914), (95, 42890), (98, 42869), (99, 42866), (112, 42788),

Gene: Eremos\_50 Start: 43776, Stop: 43156, Start Num: 23

Candidate Starts for Eremos\_50:

(Start: 23 @43776 has 316 MA's), (Start: 33 @43680 has 1 MA's), (50, 43578), (51, 43575), (52, 43569), (56, 43545), (59, 43536), (68, 43503), (74, 43476), (99, 43344), (100, 43341), (108, 43281),

Gene: Etaye\_50 Start: 43770, Stop: 43150, Start Num: 23

Candidate Starts for Etaye\_50:

(Start: 23 @43770 has 316 MA's), (Start: 33 @43674 has 1 MA's), (50, 43572), (51, 43569), (52, 43563), (56, 43539), (59, 43530), (68, 43497), (74, 43470), (99, 43338), (100, 43335), (108, 43275),

Gene: Eugenia\_50 Start: 43780, Stop: 43160, Start Num: 23

Candidate Starts for Eugenia\_50:

(Start: 23 @43780 has 316 MA's), (Start: 33 @43684 has 1 MA's), (50, 43582), (51, 43579), (52, 43573), (56, 43549), (59, 43540), (68, 43507), (74, 43480), (99, 43348), (100, 43345), (108, 43285),

Gene: Evaa\_43 Start: 37468, Stop: 36944, Start Num: 25

Candidate Starts for Evaa\_43:

(Start: 25 @37468 has 46 MA's), (44, 37330), (73, 37213), (88, 37183), (90, 37171), (91, 37168), (100, 37120), (101, 37111), (106, 37081), (113, 37042), (120, 36979),

Gene: Fanaw\_44 Start: 43988, Stop: 43377, Start Num: 23

Candidate Starts for Fanaw\_44:

(Start: 23 @43988 has 316 MA's), (Start: 33 @43898 has 1 MA's), (52, 43784), (56, 43760), (60, 43748), (72, 43697), (91, 43610), (95, 43586), (98, 43565), (99, 43562), (111, 43487),

Gene: Fang\_51 Start: 43928, Stop: 43308, Start Num: 23

Candidate Starts for Fang\_51:

(Start: 23 @43928 has 316 MA's), (Start: 33 @43832 has 1 MA's), (50, 43730), (51, 43727), (52, 43721), (56, 43697), (59, 43688), (68, 43655), (74, 43628), (99, 43496), (100, 43493), (108, 43433),

Gene: Faze9\_48 Start: 43607, Stop: 43083, Start Num: 29

Candidate Starts for Faze9\_48:

(21, 43697), (Start: 29 @43607 has 51 MA's), (73, 43367), (83, 43337), (88, 43334), (90, 43322), (92, 43316), (98, 43277), (100, 43271), (103, 43256), (120, 43124), (125, 43103),

Gene: FluffyNinja\_51 Start: 43942, Stop: 43322, Start Num: 23

Candidate Starts for FluffyNinja\_51:

(Start: 23 @43942 has 316 MA's), (Start: 33 @43846 has 1 MA's), (50, 43744), (51, 43741), (52, 43735), (56, 43711), (59, 43702), (68, 43669), (74, 43642), (99, 43510), (100, 43507), (108, 43447),

Gene: ForDig\_44 Start: 42075, Stop: 41440, Start Num: 23

Candidate Starts for ForDig\_44:

(Start: 23 @42075 has 316 MA's), (50, 41868), (52, 41859), (56, 41835), (74, 41763),



Gene: Fortunato\_46 Start: 44349, Stop: 43735, Start Num: 23

Candidate Starts for Fortunato\_46:

(Start: 23 @44349 has 316 MA's), (Start: 33 @44256 has 1 MA's), (52, 44142), (56, 44118), (60, 44106), (72, 44055), (91, 43968), (95, 43944), (98, 43923), (99, 43920), (111, 43845),

Gene: Fozzie\_49 Start: 43805, Stop: 43185, Start Num: 23

Candidate Starts for Fozzie\_49:

(Start: 23 @43805 has 316 MA's), (Start: 33 @43709 has 1 MA's), (50, 43607), (51, 43604), (52, 43598), (56, 43574), (59, 43565), (68, 43532), (74, 43505), (99, 43373), (100, 43370), (108, 43310),

Gene: Frankicide\_50 Start: 43807, Stop: 43187, Start Num: 23

Candidate Starts for Frankicide\_50:

(Start: 23 @43807 has 316 MA's), (Start: 33 @43711 has 1 MA's), (50, 43609), (51, 43606), (52, 43600), (56, 43576), (59, 43567), (68, 43534), (74, 43507), (99, 43375), (100, 43372), (108, 43312),

Gene: Frederick\_46 Start: 44322, Stop: 43711, Start Num: 23

Candidate Starts for Frederick\_46:

(Start: 23 @44322 has 316 MA's), (Start: 33 @44232 has 1 MA's), (52, 44118), (56, 44094), (60, 44082), (72, 44031), (91, 43944), (95, 43920), (98, 43899), (99, 43896), (111, 43821),

Gene: FrenchFry\_49 Start: 43586, Stop: 43077, Start Num: 29

Candidate Starts for FrenchFry\_49:

(21, 43676), (Start: 29 @43586 has 51 MA's), (73, 43361), (83, 43331), (88, 43328), (90, 43316), (92, 43310), (98, 43271), (100, 43265), (103, 43250), (120, 43118), (125, 43097),

Gene: Fresco\_43 Start: 36579, Stop: 36085, Start Num: 29

Candidate Starts for Fresco\_43:

(Start: 29 @36579 has 51 MA's), (73, 36354), (96, 36276), (98, 36264), (105, 36222), (113, 36180), (124, 36099),

Gene: Freya\_49 Start: 43468, Stop: 42848, Start Num: 23

Candidate Starts for Freya\_49:

(Start: 23 @43468 has 316 MA's), (Start: 33 @43372 has 1 MA's), (50, 43270), (51, 43267), (52, 43261), (56, 43237), (59, 43228), (68, 43195), (74, 43168), (99, 43036), (100, 43033), (108, 42973),

Gene: FriarPreacher\_49 Start: 43819, Stop: 43199, Start Num: 23

Candidate Starts for FriarPreacher\_49:

(Start: 23 @43819 has 316 MA's), (Start: 33 @43723 has 1 MA's), (50, 43621), (51, 43618), (52, 43612), (56, 43588), (59, 43579), (68, 43546), (74, 43519), (99, 43387), (100, 43384), (108, 43324),

Gene: Fringe\_51 Start: 43904, Stop: 43284, Start Num: 23

Candidate Starts for Fringe\_51:

(Start: 23 @43904 has 316 MA's), (Start: 33 @43808 has 1 MA's), (50, 43706), (51, 43703), (52, 43697), (56, 43673), (59, 43664), (68, 43631), (74, 43604), (99, 43472), (100, 43469), (108, 43409),

Gene: FugateOSU\_49 Start: 43482, Stop: 42862, Start Num: 23

Candidate Starts for FugateOSU\_49:

(Start: 23 @43482 has 316 MA's), (Start: 33 @43386 has 1 MA's), (50, 43284), (51, 43281), (52, 43275), (56, 43251), (59, 43242), (68, 43209), (74, 43182), (99, 43050), (100, 43047), (108, 42987),

Gene: Funsized\_53 Start: 47015, Stop: 46386, Start Num: 23

Candidate Starts for Funsized\_53:

(Start: 23 @47015 has 316 MA's), (34, 46910), (48, 46814), (50, 46805), (51, 46802), (54, 46787), (58, 46769), (69, 46721), (74, 46697), (84, 46640), (86, 46634), (99, 46565), (108, 46502),

Gene: Gadget\_49 Start: 43226, Stop: 42681, Start Num: 25

Candidate Starts for Gadget\_49:

(Start: 25 @43226 has 46 MA's), (40, 43097), (45, 43076), (67, 42989), (71, 42974), (73, 42962), (83, 42932), (92, 42911), (98, 42872), (100, 42866), (101, 42857), (105, 42830),

Gene: Gareth\_49 Start: 43476, Stop: 42856, Start Num: 23

Candidate Starts for Gareth\_49:

(Start: 23 @43476 has 316 MA's), (Start: 33 @43380 has 1 MA's), (50, 43278), (51, 43275), (52, 43269), (56, 43245), (59, 43236), (68, 43203), (74, 43176), (99, 43044), (100, 43041), (108, 42981),

Gene: GeneCoco\_50 Start: 43791, Stop: 43171, Start Num: 23

Candidate Starts for GeneCoco\_50:

(Start: 23 @43791 has 316 MA's), (Start: 33 @43695 has 1 MA's), (50, 43593), (51, 43590), (52, 43584), (56, 43560), (59, 43551), (68, 43518), (74, 43491), (82, 43449), (99, 43359), (100, 43356), (108, 43296),

Gene: Gervas\_48 Start: 43193, Stop: 42648, Start Num: 25

Candidate Starts for Gervas\_48:

(Start: 25 @43193 has 46 MA's), (45, 43043), (67, 42956), (71, 42941), (73, 42929), (83, 42899), (92, 42878), (98, 42839), (100, 42833), (101, 42824), (105, 42797),

Gene: GinPorsche\_44 Start: 43292, Stop: 42684, Start Num: 23

Candidate Starts for GinPorsche\_44:

(Start: 23 @43292 has 316 MA's), (Start: 33 @43202 has 1 MA's), (52, 43088), (56, 43064), (60, 43052), (72, 43001), (91, 42914), (95, 42890), (98, 42869), (99, 42866), (112, 42788),

Gene: Giraffe\_50 Start: 43500, Stop: 42880, Start Num: 23

Candidate Starts for Giraffe\_50:

(Start: 23 @43500 has 316 MA's), (Start: 33 @43404 has 1 MA's), (50, 43302), (51, 43299), (52, 43293), (56, 43269), (59, 43260), (68, 43227), (74, 43200), (99, 43068), (100, 43065), (108, 43005),

Gene: Glass\_49 Start: 43591, Stop: 43079, Start Num: 29

Candidate Starts for Glass\_49:

(21, 43681), (Start: 29 @43591 has 51 MA's), (73, 43363), (83, 43333), (88, 43330), (90, 43318), (92, 43312), (98, 43273), (100, 43267), (103, 43252), (120, 43120), (125, 43099),

Gene: GlenHope\_49 Start: 43206, Stop: 42661, Start Num: 25

Candidate Starts for GlenHope\_49:

(Start: 25 @43206 has 46 MA's), (40, 43077), (45, 43056), (67, 42969), (71, 42954), (73, 42942), (83, 42912), (92, 42891), (100, 42846), (101, 42837), (105, 42810),

Gene: Glubnar\_48 Start: 43205, Stop: 42660, Start Num: 25

Candidate Starts for Glubnar\_48:

(Start: 25 @43205 has 46 MA's), (45, 43055), (67, 42968), (71, 42953), (73, 42941), (83, 42911), (92, 42890), (98, 42851), (100, 42845), (101, 42836), (105, 42809),

Gene: Godines\_49 Start: 43543, Stop: 43019, Start Num: 29

Candidate Starts for Godines\_49:

(21, 43633), (Start: 29 @43543 has 51 MA's), (73, 43303), (83, 43273), (88, 43270), (90, 43258), (92, 43252), (98, 43213), (100, 43207), (120, 43060),

Gene: Gophee\_50 Start: 43774, Stop: 43154, Start Num: 23

Candidate Starts for Gophee\_50:

(Start: 23 @43774 has 316 MA's), (Start: 33 @43678 has 1 MA's), (50, 43576), (51, 43573), (52, 43567), (56, 43543), (59, 43534), (68, 43501), (74, 43474), (99, 43342), (100, 43339), (108, 43279),

Gene: Grand2040\_49 Start: 43494, Stop: 42874, Start Num: 23

Candidate Starts for Grand2040\_49:

(Start: 23 @43494 has 316 MA's), (Start: 33 @43398 has 1 MA's), (50, 43296), (51, 43293), (52, 43287), (56, 43263), (59, 43254), (68, 43221), (74, 43194), (99, 43062), (100, 43059), (108, 42999),

Gene: Gustav\_29 Start: 23634, Stop: 23074, Start Num: 24

Candidate Starts for Gustav\_29:

(Start: 24 @23634 has 5 MA's), (61, 23397), (73, 23352), (106, 23220), (107, 23202), (108, 23199), (109, 23196), (113, 23181),

Gene: Gwennie1\_50 Start: 43840, Stop: 43220, Start Num: 23

Candidate Starts for Gwennie1\_50:

(Start: 23 @43840 has 316 MA's), (Start: 33 @43744 has 1 MA's), (50, 43642), (51, 43639), (52, 43633), (56, 43609), (59, 43600), (68, 43567), (74, 43540), (99, 43408), (100, 43405), (108, 43345),

Gene: Gwilliam\_50 Start: 43780, Stop: 43160, Start Num: 23

Candidate Starts for Gwilliam\_50:

(Start: 23 @43780 has 316 MA's), (Start: 33 @43684 has 1 MA's), (50, 43582), (51, 43579), (52, 43573), (56, 43549), (59, 43540), (68, 43507), (74, 43480), (99, 43348), (100, 43345), (108, 43285),

Gene: Gyarad\_0050 Start: 43794, Stop: 43174, Start Num: 23

Candidate Starts for Gyarad\_0050:

(Start: 23 @43794 has 316 MA's), (Start: 33 @43698 has 1 MA's), (50, 43596), (51, 43593), (52, 43587), (56, 43563), (59, 43554), (68, 43521), (74, 43494), (99, 43362), (100, 43359), (108, 43299),

Gene: HSavage\_50 Start: 43786, Stop: 43166, Start Num: 23

Candidate Starts for HSavage\_50:

(Start: 23 @43786 has 316 MA's), (Start: 33 @43690 has 1 MA's), (36, 43663), (50, 43588), (51, 43585), (52, 43579), (56, 43555), (59, 43546), (68, 43513), (74, 43486), (99, 43354), (100, 43351), (108, 43291),

Gene: Haimas\_50 Start: 43780, Stop: 43160, Start Num: 23

Candidate Starts for Haimas\_50:

(Start: 23 @43780 has 316 MA's), (Start: 33 @43684 has 1 MA's), (50, 43582), (51, 43579), (52, 43573), (56, 43549), (59, 43540), (68, 43507), (74, 43480), (99, 43348), (100, 43345), (108, 43285),

Gene: Haleema\_49 Start: 43494, Stop: 42874, Start Num: 23

Candidate Starts for Haleema\_49:

(Start: 23 @43494 has 316 MA's), (Start: 33 @43398 has 1 MA's), (50, 43296), (51, 43293), (52, 43287), (56, 43263), (59, 43254), (68, 43221), (74, 43194), (99, 43062), (100, 43059), (108, 42999),

Gene: Halfpint\_47 Start: 43031, Stop: 42486, Start Num: 25

Candidate Starts for Halfpint\_47:

(Start: 25 @43031 has 46 MA's), (40, 42902), (45, 42881), (67, 42794), (71, 42779), (73, 42767), (83, 42737), (92, 42716), (98, 42677), (100, 42671), (101, 42662), (105, 42635),

Gene: Hally898\_44 Start: 43304, Stop: 42696, Start Num: 23

Candidate Starts for Hally898\_44:

(Start: 23 @43304 has 316 MA's), (Start: 33 @43214 has 1 MA's), (52, 43100), (56, 43076), (60, 43064), (72, 43013), (91, 42926), (95, 42902), (98, 42881), (99, 42878), (112, 42800),

Gene: Hamish\_50 Start: 43772, Stop: 43152, Start Num: 23

Candidate Starts for Hamish\_50:

(9, 43886), (16, 43859), (19, 43847), (Start: 23 @43772 has 316 MA's), (Start: 33 @43676 has 1 MA's), (50, 43574), (51, 43571), (52, 43565), (56, 43541), (59, 43532), (68, 43499), (74, 43472), (99, 43340), (100, 43337), (108, 43277),

Gene: Hangman\_45 Start: 44428, Stop: 43820, Start Num: 23

Candidate Starts for Hangman\_45:

(Start: 23 @44428 has 316 MA's), (Start: 33 @44338 has 1 MA's), (52, 44224), (56, 44200), (60, 44188), (72, 44137), (91, 44050), (95, 44026), (98, 44005), (99, 44002), (111, 43927), (112, 43924),

Gene: Hartsy\_50 Start: 43823, Stop: 43203, Start Num: 23

Candidate Starts for Hartsy\_50:

(Start: 23 @43823 has 316 MA's), (Start: 33 @43727 has 1 MA's), (50, 43625), (51, 43622), (52, 43616), (56, 43592), (59, 43583), (68, 43550), (74, 43523), (99, 43391), (100, 43388), (108, 43328),

Gene: Harvey\_50 Start: 43810, Stop: 43190, Start Num: 23

Candidate Starts for Harvey\_50:

(Start: 23 @43810 has 316 MA's), (Start: 33 @43714 has 1 MA's), (50, 43612), (51, 43609), (52, 43603), (56, 43579), (59, 43570), (68, 43537), (74, 43510), (99, 43378), (100, 43375), (108, 43315),

Gene: HarveySr\_48 Start: 43199, Stop: 42654, Start Num: 25

Candidate Starts for HarveySr\_48:

(Start: 25 @43199 has 46 MA's), (45, 43049), (67, 42962), (71, 42947), (73, 42935), (83, 42905), (92, 42884), (98, 42845), (100, 42839), (101, 42830), (105, 42803),

Gene: Hashim76\_52 Start: 43507, Stop: 42890, Start Num: 23

Candidate Starts for Hashim76\_52:

(Start: 23 @43507 has 316 MA's), (43, 43306), (48, 43279), (56, 43237), (99, 43075), (108, 43012), (114, 42961),

Gene: Heath\_44 Start: 43936, Stop: 43322, Start Num: 23

Candidate Starts for Heath\_44:

(Start: 23 @43936 has 316 MA's), (Start: 33 @43843 has 1 MA's), (52, 43729), (56, 43705), (60, 43693), (72, 43642), (91, 43555), (95, 43531), (98, 43510), (99, 43507), (111, 43432),

Gene: Heathcliff\_48 Start: 43177, Stop: 42632, Start Num: 25

Candidate Starts for Heathcliff\_48:

(Start: 25 @43177 has 46 MA's), (40, 43048), (45, 43027), (67, 42940), (71, 42925), (73, 42913), (83, 42883), (92, 42862), (98, 42823), (100, 42817), (101, 42808), (105, 42781),

Gene: Hedgerow\_49 Start: 43600, Stop: 43061, Start Num: 29

Candidate Starts for Hedgerow\_49:

(21, 43690), (Start: 29 @43600 has 51 MA's), (73, 43345), (83, 43315), (88, 43312), (90, 43300), (92, 43294), (98, 43255), (100, 43249), (103, 43234), (120, 43102), (125, 43081),

Gene: Held\_50 Start: 43499, Stop: 42879, Start Num: 23

Candidate Starts for Held\_50:

(Start: 23 @43499 has 316 MA's), (Start: 33 @43403 has 1 MA's), (50, 43301), (51, 43298), (52, 43292), (56, 43268), (59, 43259), (68, 43226), (74, 43199), (99, 43067), (100, 43064), (108, 43004),

Gene: HenryJackson\_49 Start: 43494, Stop: 42874, Start Num: 23

Candidate Starts for HenryJackson\_49:

(Start: 23 @43494 has 316 MA's), (Start: 33 @43398 has 1 MA's), (50, 43296), (51, 43293), (52, 43287), (56, 43263), (59, 43254), (68, 43221), (74, 43194), (99, 43062), (100, 43059), (108, 42999),

Gene: Hertubise\_50 Start: 43794, Stop: 43174, Start Num: 23

Candidate Starts for Hertubise\_50:

(Start: 23 @43794 has 316 MA's), (Start: 33 @43698 has 1 MA's), (50, 43596), (51, 43593), (52, 43587), (56, 43563), (59, 43554), (68, 43521), (74, 43494), (99, 43362), (100, 43359), (108, 43299),

Gene: Hetaeria\_50 Start: 43811, Stop: 43191, Start Num: 23

Candidate Starts for Hetaeria\_50:

(Start: 23 @43811 has 316 MA's), (Start: 33 @43715 has 1 MA's), (50, 43613), (51, 43610), (52, 43604), (56, 43580), (59, 43571), (68, 43538), (74, 43511), (99, 43379), (100, 43376), (108, 43316),

Gene: HighStump\_50 Start: 43621, Stop: 43001, Start Num: 23

Candidate Starts for HighStump\_50:

(Start: 23 @43621 has 316 MA's), (Start: 33 @43525 has 1 MA's), (50, 43423), (51, 43420), (52, 43414), (56, 43390), (59, 43381), (68, 43348), (74, 43321), (99, 43189), (100, 43186), (108, 43126),

Gene: Hocus\_49 Start: 43483, Stop: 42863, Start Num: 23

Candidate Starts for Hocus\_49:

(Start: 23 @43483 has 316 MA's), (Start: 33 @43387 has 1 MA's), (50, 43285), (51, 43282), (52, 43276), (56, 43252), (59, 43243), (68, 43210), (74, 43183), (99, 43051), (100, 43048), (108, 42988),

Gene: Holeinone\_49 Start: 43451, Stop: 42939, Start Num: 29

Candidate Starts for Holeinone\_49:

(21, 43541), (Start: 29 @43451 has 51 MA's), (73, 43223), (83, 43193), (88, 43190), (90, 43178), (92, 43172), (98, 43133), (100, 43127), (103, 43112), (120, 42980),

Gene: Horchata\_50 Start: 43786, Stop: 43166, Start Num: 23

Candidate Starts for Horchata\_50:

(Start: 23 @43786 has 316 MA's), (Start: 33 @43690 has 1 MA's), (50, 43588), (51, 43585), (52, 43579), (56, 43555), (59, 43546), (68, 43513), (74, 43486), (99, 43354), (100, 43351), (108, 43291),

Gene: Hosp\_041 Start: 40282, Stop: 39653, Start Num: 23

Candidate Starts for Hosp\_041:

(8, 40396), (Start: 23 @40282 has 316 MA's), (50, 40081), (51, 40078), (52, 40072), (56, 40048), (74, 39976),

Gene: Hydro\_45 Start: 44364, Stop: 43750, Start Num: 23

Candidate Starts for Hydro\_45:

(Start: 23 @44364 has 316 MA's), (Start: 33 @44271 has 1 MA's), (52, 44157), (56, 44133), (60, 44121), (72, 44070), (91, 43983), (95, 43959), (98, 43938), (99, 43935), (111, 43860),

Gene: ImtiyazSitla\_50 Start: 43469, Stop: 42849, Start Num: 23

Candidate Starts for ImtiyazSitla\_50:

(Start: 23 @43469 has 316 MA's), (Start: 33 @43373 has 1 MA's), (50, 43271), (51, 43268), (52, 43262), (56, 43238), (59, 43229), (68, 43196), (74, 43169), (99, 43037), (100, 43034), (108, 42974),

Gene: Imvubu\_42 Start: 41052, Stop: 40453, Start Num: 23

Candidate Starts for Imvubu\_42:

(1, 41370), (13, 41151), (18, 41136), (Start: 23 @41052 has 316 MA's), (Start: 33 @40947 has 1 MA's), (34, 40938), (48, 40848), (52, 40830), (55, 40815), (56, 40806), (70, 40752), (108, 40581),

Gene: Inchworm\_51 Start: 43907, Stop: 43287, Start Num: 23

Candidate Starts for Inchworm\_51:

(Start: 23 @43907 has 316 MA's), (Start: 33 @43811 has 1 MA's), (50, 43709), (51, 43706), (52, 43700), (56, 43676), (59, 43667), (68, 43634), (74, 43607), (99, 43475), (100, 43472), (108, 43412),

Gene: Indlovu\_47 Start: 43460, Stop: 42840, Start Num: 23

Candidate Starts for Indlovu\_47:

(Start: 23 @43460 has 316 MA's), (46, 43289), (48, 43277), (56, 43235), (68, 43190), (70, 43184), (74, 43163), (95, 43055), (98, 43034), (99, 43031),

Gene: Inverness\_50 Start: 43795, Stop: 43175, Start Num: 23

Candidate Starts for Inverness\_50:

(Start: 23 @43795 has 316 MA's), (Start: 33 @43699 has 1 MA's), (36, 43672), (50, 43597), (51, 43594), (52, 43588), (56, 43564), (59, 43555), (68, 43522), (74, 43495), (99, 43363), (100, 43360), (108, 43300),

Gene: Iridessa\_51 Start: 43479, Stop: 42859, Start Num: 23

Candidate Starts for Iridessa\_51:

(Start: 23 @43479 has 316 MA's), (Start: 33 @43383 has 1 MA's), (50, 43281), (51, 43278), (52, 43272), (56, 43248), (59, 43239), (68, 43206), (74, 43179), (99, 43047), (100, 43044), (108, 42984),

Gene: Iridoclysis\_50 Start: 43766, Stop: 43146, Start Num: 23

Candidate Starts for Iridoclysis\_50:

(Start: 23 @43766 has 316 MA's), (Start: 33 @43670 has 1 MA's), (50, 43568), (51, 43565), (52, 43559), (56, 43535), (59, 43526), (68, 43493), (74, 43466), (99, 43334), (100, 43331), (108, 43271),

Gene: IsaacEli\_51 Start: 43925, Stop: 43305, Start Num: 23

Candidate Starts for IsaacEli\_51:

(Start: 23 @43925 has 316 MA's), (Start: 33 @43829 has 1 MA's), (50, 43727), (51, 43724), (52, 43718), (56, 43694), (59, 43685), (68, 43652), (74, 43625), (99, 43493), (100, 43490), (108, 43430),

Gene: ItsyBitsy1\_49 Start: 43468, Stop: 42941, Start Num: 29

Candidate Starts for ItsyBitsy1\_49:

(21, 43558), (Start: 29 @43468 has 51 MA's), (73, 43225), (83, 43195), (88, 43192), (90, 43180), (92, 43174), (98, 43135), (100, 43129), (103, 43114), (120, 42982),

Gene: JAMaL\_45 Start: 44498, Stop: 43890, Start Num: 23

Candidate Starts for JAMaL\_45:

(Start: 23 @44498 has 316 MA's), (Start: 33 @44408 has 1 MA's), (52, 44294), (56, 44270), (60, 44258), (72, 44207), (91, 44120), (95, 44096), (98, 44075), (99, 44072), (112, 43994),

Gene: JDog\_49 Start: 43503, Stop: 42883, Start Num: 23

Candidate Starts for JDog\_49:

(Start: 23 @43503 has 316 MA's), (Start: 33 @43407 has 1 MA's), (50, 43305), (51, 43302), (52, 43296), (56, 43272), (59, 43263), (68, 43230), (74, 43203), (99, 43071), (100, 43068), (108, 43008),

Gene: JacAttac\_51 Start: 43907, Stop: 43287, Start Num: 23

Candidate Starts for JacAttac\_51:

(Start: 23 @43907 has 316 MA's), (Start: 33 @43811 has 1 MA's), (50, 43709), (51, 43706), (52, 43700), (56, 43676), (59, 43667), (68, 43634), (74, 43607), (99, 43475), (100, 43472), (108, 43412),

Gene: Jackstina\_45 Start: 43136, Stop: 42591, Start Num: 25

Candidate Starts for Jackstina\_45:

(Start: 25 @43136 has 46 MA's), (40, 43007), (45, 42986), (67, 42899), (71, 42884), (73, 42872), (83, 42842), (92, 42821), (98, 42782), (100, 42776), (101, 42767), (105, 42740),

Gene: JaguarMi\_45 Start: 43807, Stop: 43199, Start Num: 23

Candidate Starts for JaguarMi\_45:

(Start: 23 @43807 has 316 MA's), (Start: 33 @43717 has 1 MA's), (50, 43612), (52, 43603), (56, 43579), (72, 43516), (91, 43429), (95, 43405), (98, 43384), (99, 43381), (111, 43306),

Gene: JakeO\_49 Start: 43502, Stop: 42882, Start Num: 23

Candidate Starts for JakeO\_49:

(Start: 23 @43502 has 316 MA's), (Start: 33 @43406 has 1 MA's), (50, 43304), (51, 43301), (52, 43295), (56, 43271), (59, 43262), (68, 43229), (74, 43202), (82, 43160), (99, 43070), (100, 43067), (108, 43007),

Gene: JangoPhett\_50 Start: 43777, Stop: 43157, Start Num: 23

Candidate Starts for JangoPhett\_50:

(Start: 23 @43777 has 316 MA's), (Start: 33 @43681 has 1 MA's), (50, 43579), (51, 43576), (52, 43570), (56, 43546), (59, 43537), (68, 43504), (74, 43477), (99, 43345), (100, 43342), (108, 43282),

Gene: Jesabah\_50 Start: 43505, Stop: 42885, Start Num: 23

Candidate Starts for Jesabah\_50:

(Start: 23 @43505 has 316 MA's), (Start: 33 @43409 has 1 MA's), (50, 43307), (51, 43304), (52, 43298), (56, 43274), (59, 43265), (68, 43232), (74, 43205), (99, 43073), (100, 43070), (108, 43010),

Gene: Jillium\_49 Start: 43496, Stop: 42876, Start Num: 23

Candidate Starts for Jillium\_49:

(Start: 23 @43496 has 316 MA's), (Start: 33 @43400 has 1 MA's), (50, 43298), (51, 43295), (52, 43289), (56, 43265), (59, 43256), (68, 43223), (74, 43196), (99, 43064), (100, 43061), (108, 43001),

Gene: Jiminy\_49 Start: 43337, Stop: 42717, Start Num: 23

Candidate Starts for Jiminy\_49:

(Start: 23 @43337 has 316 MA's), (Start: 33 @43241 has 1 MA's), (50, 43139), (51, 43136), (52, 43130), (56, 43106), (59, 43097), (68, 43064), (74, 43037), (82, 42995), (99, 42905), (100, 42902), (108, 42842),

Gene: Jiraiya\_49 Start: 43490, Stop: 42870, Start Num: 23

Candidate Starts for Jiraiya\_49:

(Start: 23 @43490 has 316 MA's), (Start: 33 @43394 has 1 MA's), (50, 43292), (51, 43289), (52, 43283), (56, 43259), (59, 43250), (68, 43217), (74, 43190), (99, 43058), (100, 43055), (108, 42995),

Gene: Jolie1\_043 Start: 42057, Stop: 41428, Start Num: 23

Candidate Starts for Jolie1\_043:

(Start: 23 @42057 has 316 MA's), (50, 41856), (52, 41847), (56, 41823), (74, 41751),

Gene: KLucky39\_50 Start: 43793, Stop: 43173, Start Num: 23

Candidate Starts for KLucky39\_50:

(Start: 23 @43793 has 316 MA's), (Start: 33 @43697 has 1 MA's), (50, 43595), (51, 43592), (52, 43586), (56, 43562), (59, 43553), (68, 43520), (74, 43493), (99, 43361), (100, 43358), (108, 43298),

Gene: Kahve\_49 Start: 43491, Stop: 42871, Start Num: 23

Candidate Starts for Kahve\_49:

(Start: 23 @43491 has 316 MA's), (Start: 33 @43395 has 1 MA's), (50, 43293), (51, 43290), (52, 43284), (56, 43260), (59, 43251), (68, 43218), (74, 43191), (99, 43059), (100, 43056), (108, 42996),

Gene: Kailash\_50 Start: 43853, Stop: 43233, Start Num: 23

Candidate Starts for Kailash\_50:

(Start: 23 @43853 has 316 MA's), (Start: 33 @43757 has 1 MA's), (50, 43655), (51, 43652), (52, 43646), (56, 43622), (59, 43613), (68, 43580), (74, 43553), (99, 43421), (100, 43418), (108, 43358),

Gene: Kaleb\_49 Start: 43615, Stop: 43076, Start Num: 29

Candidate Starts for Kaleb\_49:

(21, 43705), (Start: 29 @43615 has 51 MA's), (73, 43360), (83, 43330), (88, 43327), (90, 43315), (92, 43309), (98, 43270), (100, 43264), (103, 43249), (120, 43117), (125, 43096),

Gene: Kamiyu\_48 Start: 43184, Stop: 42639, Start Num: 25

Candidate Starts for Kamiyu\_48:

(Start: 25 @43184 has 46 MA's), (40, 43055), (45, 43034), (67, 42947), (71, 42932), (73, 42920), (83, 42890), (92, 42869), (98, 42830), (100, 42824), (101, 42815), (105, 42788),

Gene: KarasumaRum\_50 Start: 44848, Stop: 44249, Start Num: 23

Candidate Starts for KarasumaRum\_50:

(11, 44956), (Start: 23 @44848 has 316 MA's), (34, 44731), (51, 44623), (52, 44617), (56, 44593), (95, 44458), (105, 44395), (108, 44371), (116, 44314),

Gene: Katniss\_51 Start: 43934, Stop: 43314, Start Num: 23

Candidate Starts for Katniss\_51:

(Start: 23 @43934 has 316 MA's), (Start: 33 @43838 has 1 MA's), (50, 43736), (51, 43733), (52, 43727), (56, 43703), (59, 43694), (68, 43661), (74, 43634), (99, 43502), (100, 43499), (108, 43439),

Gene: KayaCho\_43 Start: 42082, Stop: 41447, Start Num: 23

Candidate Starts for KayaCho\_43:

(6, 42232), (15, 42172), (Start: 23 @42082 has 316 MA's), (50, 41875), (51, 41872), (52, 41866), (56, 41842), (74, 41770), (98, 41641),

Gene: Keitherie\_50 Start: 43837, Stop: 43217, Start Num: 23

Candidate Starts for Keitherie\_50:

(Start: 23 @43837 has 316 MA's), (Start: 33 @43741 has 1 MA's), (50, 43639), (51, 43636), (52, 43630), (56, 43606), (59, 43597), (68, 43564), (74, 43537), (99, 43405), (100, 43402), (108, 43342),

Gene: Khan1\_50 Start: 43512, Stop: 42892, Start Num: 23

Candidate Starts for Khan1\_50:

(Start: 23 @43512 has 316 MA's), (Start: 33 @43416 has 1 MA's), (50, 43314), (51, 43311), (52, 43305), (56, 43281), (59, 43272), (68, 43239), (74, 43212), (99, 43080), (100, 43077), (108, 43017),

Gene: Kheth\_49 Start: 43504, Stop: 42992, Start Num: 29

Candidate Starts for Kheth\_49:

(21, 43594), (Start: 29 @43504 has 51 MA's), (73, 43276), (83, 43246), (88, 43243), (90, 43231), (92, 43225), (98, 43186), (100, 43180), (103, 43165), (120, 43033),

Gene: Kikipoo\_51 Start: 43925, Stop: 43305, Start Num: 23

Candidate Starts for Kikipoo\_51:



(Start: 23 @43925 has 316 MA's), (Start: 33 @43829 has 1 MA's), (50, 43727), (51, 43724), (52, 43718), (56, 43694), (59, 43685), (68, 43652), (74, 43625), (99, 43493), (100, 43490), (108, 43430),

Gene: Kimbrough\_50 Start: 43498, Stop: 42878, Start Num: 23

Candidate Starts for Kimbrough\_50:

(Start: 23 @43498 has 316 MA's), (Start: 33 @43402 has 1 MA's), (50, 43300), (51, 43297), (52, 43291), (56, 43267), (59, 43258), (68, 43225), (74, 43198), (99, 43066), (100, 43063), (108, 43003),

Gene: KingTut\_41 Start: 39161, Stop: 38541, Start Num: 23

Candidate Starts for KingTut\_41:

(Start: 23 @39161 has 316 MA's), (Start: 33 @39065 has 1 MA's), (50, 38963), (51, 38960), (52, 38954), (56, 38930), (59, 38921), (68, 38888), (74, 38861), (99, 38729), (100, 38726), (108, 38666),

Gene: KingVeVeVe\_50 Start: 43769, Stop: 43149, Start Num: 23

Candidate Starts for KingVeVeVe\_50:

(Start: 23 @43769 has 316 MA's), (Start: 33 @43673 has 1 MA's), (50, 43571), (51, 43568), (52, 43562), (56, 43538), (59, 43529), (68, 43496), (74, 43469), (99, 43337), (100, 43334), (108, 43274),

Gene: KlimbOn\_50 Start: 43787, Stop: 43167, Start Num: 23

Candidate Starts for KlimbOn\_50:

(Start: 23 @43787 has 316 MA's), (Start: 33 @43691 has 1 MA's), (36, 43664), (50, 43589), (51, 43586), (52, 43580), (56, 43556), (59, 43547), (68, 43514), (74, 43487), (99, 43355), (100, 43352), (108, 43292),

Gene: Kloppinator\_51 Start: 44200, Stop: 43580, Start Num: 23

Candidate Starts for Kloppinator\_51:

(Start: 23 @44200 has 316 MA's), (Start: 33 @44104 has 1 MA's), (50, 44002), (51, 43999), (52, 43993), (56, 43969), (59, 43960), (68, 43927), (74, 43900), (99, 43768), (100, 43765), (108, 43705),

Gene: Knocker\_51 Start: 46002, Stop: 45382, Start Num: 23

Candidate Starts for Knocker\_51:

(Start: 23 @46002 has 316 MA's), (34, 45912), (48, 45813), (50, 45804), (51, 45801), (58, 45768), (69, 45720), (74, 45696), (84, 45639), (86, 45633), (99, 45564), (104, 45543), (108, 45501), (118, 45438),

Gene: Kolhan\_49 Start: 43468, Stop: 42947, Start Num: 29

Candidate Starts for Kolhan\_49:

(21, 43558), (Start: 29 @43468 has 51 MA's), (73, 43231), (83, 43201), (88, 43198), (90, 43186), (92, 43180), (98, 43141), (100, 43135), (103, 43120), (120, 42988), (125, 42967),

Gene: Kronus\_47 Start: 43796, Stop: 43251, Start Num: 25

Candidate Starts for Kronus\_47:

(Start: 25 @43796 has 46 MA's), (45, 43646), (67, 43559), (71, 43544), (73, 43532), (83, 43502), (92, 43481), (98, 43442), (100, 43436), (101, 43427), (105, 43400),

Gene: Kwadwo\_49 Start: 43473, Stop: 42853, Start Num: 23

Candidate Starts for Kwadwo\_49:

(Start: 23 @43473 has 316 MA's), (Start: 33 @43377 has 1 MA's), (50, 43275), (51, 43272), (52, 43266), (56, 43242), (59, 43233), (68, 43200), (74, 43173), (99, 43041), (100, 43038), (108, 42978),

Gene: Kwksand96\_49 Start: 43348, Stop: 42728, Start Num: 23

Candidate Starts for Kwksand96\_49:

(Start: 23 @43348 has 316 MA's), (Start: 33 @43252 has 1 MA's), (50, 43150), (51, 43147), (52, 43141), (56, 43117), (59, 43108), (68, 43075), (74, 43048), (99, 42916), (100, 42913), (108, 42853),

Gene: Labeouficaum\_49 Start: 43343, Stop: 42723, Start Num: 23

Candidate Starts for Labeouficaum\_49:

(Start: 23 @43343 has 316 MA's), (Start: 33 @43247 has 1 MA's), (50, 43145), (51, 43142), (52, 43136), (56, 43112), (59, 43103), (68, 43070), (74, 43043), (82, 43001), (99, 42911), (100, 42908), (108, 42848),

Gene: Lambano\_44 Start: 43304, Stop: 42696, Start Num: 23

Candidate Starts for Lambano\_44:

(Start: 23 @43304 has 316 MA's), (Start: 33 @43214 has 1 MA's), (52, 43100), (56, 43076), (60, 43064), (72, 43013), (91, 42926), (95, 42902), (98, 42881), (99, 42878), (112, 42800),

Gene: Lars\_49 Start: 43575, Stop: 43063, Start Num: 29

Candidate Starts for Lars\_49:

(21, 43665), (Start: 29 @43575 has 51 MA's), (73, 43347), (83, 43317), (88, 43314), (90, 43302), (92, 43296), (98, 43257), (100, 43251), (103, 43236), (120, 43104), (125, 43083),

Gene: LasagnaCat\_51 Start: 43919, Stop: 43299, Start Num: 23

Candidate Starts for LasagnaCat\_51:

(Start: 23 @43919 has 316 MA's), (Start: 33 @43823 has 1 MA's), (50, 43721), (51, 43718), (52, 43712), (56, 43688), (59, 43679), (68, 43646), (74, 43619), (99, 43487), (100, 43484), (108, 43424),

Gene: Lasso\_50 Start: 43748, Stop: 43128, Start Num: 23

Candidate Starts for Lasso\_50:

(Start: 23 @43748 has 316 MA's), (Start: 33 @43652 has 1 MA's), (50, 43550), (51, 43547), (52, 43541), (56, 43517), (59, 43508), (68, 43475), (74, 43448), (99, 43316), (100, 43313), (108, 43253),

Gene: Laurie\_48 Start: 42963, Stop: 42463, Start Num: 29

Candidate Starts for Laurie\_48:

(21, 43053), (Start: 29 @42963 has 51 MA's), (73, 42747), (83, 42717), (88, 42714), (90, 42702), (92, 42696), (98, 42657), (100, 42651), (103, 42636), (120, 42504),

Gene: LeeLot\_50 Start: 43800, Stop: 43180, Start Num: 23

Candidate Starts for LeeLot\_50:

(Start: 23 @43800 has 316 MA's), (Start: 33 @43704 has 1 MA's), (50, 43602), (51, 43599), (52, 43593), (56, 43569), (59, 43560), (68, 43527), (74, 43500), (99, 43368), (100, 43365), (108, 43305),

Gene: Lego3393\_49 Start: 43928, Stop: 43308, Start Num: 23

Candidate Starts for Lego3393\_49:

(Start: 23 @43928 has 316 MA's), (Start: 33 @43832 has 1 MA's), (50, 43730), (51, 43727), (52, 43721), (56, 43697), (59, 43688), (68, 43655), (74, 43628), (99, 43496), (100, 43493), (108, 43433),

Gene: Legolas\_50 Start: 43518, Stop: 42898, Start Num: 23

Candidate Starts for Legolas\_50:

(Start: 23 @43518 has 316 MA's), (Start: 33 @43422 has 1 MA's), (50, 43320), (51, 43317), (52, 43311), (56, 43287), (59, 43278), (68, 43245), (74, 43218), (99, 43086), (100, 43083), (108, 43023),

Gene: LeiMonet\_51 Start: 43480, Stop: 42860, Start Num: 23

Candidate Starts for LeiMonet\_51:

(Start: 23 @43480 has 316 MA's), (Start: 33 @43384 has 1 MA's), (50, 43282), (51, 43279), (52, 43273), (56, 43249), (59, 43240), (68, 43207), (74, 43180), (99, 43048), (100, 43045), (108, 42985),

Gene: LemonSlice\_50 Start: 43485, Stop: 42865, Start Num: 23

Candidate Starts for LemonSlice\_50:

(Start: 23 @43485 has 316 MA's), (Start: 33 @43389 has 1 MA's), (50, 43287), (51, 43284), (52, 43278), (56, 43254), (59, 43245), (68, 43212), (74, 43185), (99, 43053), (100, 43050), (108, 42990),

Gene: Lephleur\_49 Start: 43481, Stop: 42957, Start Num: 29

Candidate Starts for Lephleur\_49:

(21, 43571), (Start: 29 @43481 has 51 MA's), (73, 43241), (83, 43211), (88, 43208), (90, 43196), (92, 43190), (98, 43151), (100, 43145), (103, 43130), (120, 42998), (125, 42977),

Gene: LestyG\_48 Start: 43216, Stop: 42671, Start Num: 25

Candidate Starts for LestyG\_48:

(Start: 25 @43216 has 46 MA's), (45, 43066), (67, 42979), (71, 42964), (73, 42952), (83, 42922), (92, 42901), (98, 42862), (100, 42856), (101, 42847), (105, 42820),

Gene: Ligma\_43 Start: 36579, Stop: 36085, Start Num: 29

Candidate Starts for Ligma\_43:

(Start: 29 @36579 has 51 MA's), (73, 36354), (96, 36276), (98, 36264), (105, 36222), (113, 36180), (124, 36099),

Gene: LilMcDreamy\_47 Start: 43863, Stop: 43261, Start Num: 23

Candidate Starts for LilMcDreamy\_47:

(Start: 23 @43863 has 316 MA's), (34, 43746), (51, 43638), (52, 43632), (56, 43608), (99, 43449), (105, 43410), (108, 43386), (112, 43371), (115, 43332), (117, 43326),

Gene: LilSmirk\_49 Start: 43478, Stop: 42954, Start Num: 29

Candidate Starts for LilSmirk\_49:

(21, 43568), (Start: 29 @43478 has 51 MA's), (73, 43238), (83, 43208), (88, 43205), (90, 43193), (92, 43187), (98, 43148), (100, 43142), (120, 42995),

Gene: LittleMunchkin\_45 Start: 39895, Stop: 39398, Start Num: 29

Candidate Starts for LittleMunchkin\_45:

(Start: 29 @39895 has 51 MA's), (61, 39712), (62, 39706), (64, 39700), (73, 39667), (76, 39655), (93, 39613), (98, 39577), (100, 39571), (105, 39535), (107, 39514), (113, 39493),

Gene: LizLemon\_49 Start: 43597, Stop: 43073, Start Num: 29

Candidate Starts for LizLemon\_49:

(21, 43687), (Start: 29 @43597 has 51 MA's), (73, 43357), (83, 43327), (88, 43324), (90, 43312), (92, 43306), (98, 43267), (100, 43261), (103, 43246), (120, 43114), (125, 43093),

Gene: Lolalove\_46 Start: 44331, Stop: 43717, Start Num: 23

Candidate Starts for Lolalove\_46:

(Start: 23 @44331 has 316 MA's), (Start: 33 @44238 has 1 MA's), (52, 44124), (56, 44100), (60, 44088), (72, 44037), (91, 43950), (95, 43926), (98, 43905), (99, 43902), (111, 43827),

Gene: Longacauda\_49 Start: 43481, Stop: 42861, Start Num: 23

Candidate Starts for Longacauda\_49:

(Start: 23 @43481 has 316 MA's), (Start: 33 @43385 has 1 MA's), (50, 43283), (51, 43280), (52, 43274), (56, 43250), (59, 43241), (68, 43208), (74, 43181), (99, 43049), (100, 43046), (108, 42986),

Gene: Lopsy\_49 Start: 43346, Stop: 42726, Start Num: 23

Candidate Starts for Lopsy\_49:

(Start: 23 @43346 has 316 MA's), (Start: 33 @43250 has 1 MA's), (50, 43148), (51, 43145), (52, 43139), (56, 43115), (59, 43106), (68, 43073), (74, 43046), (99, 42914), (100, 42911), (108, 42851),

Gene: LostAndPhound\_49 Start: 43500, Stop: 42880, Start Num: 23

Candidate Starts for LostAndPhound\_49:

(Start: 23 @43500 has 316 MA's), (Start: 33 @43404 has 1 MA's), (50, 43302), (51, 43299), (52, 43293), (56, 43269), (59, 43260), (68, 43227), (74, 43200), (99, 43068), (100, 43065), (108, 43005),

Gene: LuckyMarjie\_49 Start: 43488, Stop: 42868, Start Num: 23

Candidate Starts for LuckyMarjie\_49:

(Start: 23 @43488 has 316 MA's), (Start: 33 @43392 has 1 MA's), (50, 43290), (51, 43287), (52, 43281), (56, 43257), (59, 43248), (68, 43215), (74, 43188), (99, 43056), (100, 43053), (108, 42993),

Gene: Lulumae\_49 Start: 43473, Stop: 42853, Start Num: 23

Candidate Starts for Lulumae\_49:

(Start: 23 @43473 has 316 MA's), (Start: 33 @43377 has 1 MA's), (50, 43275), (51, 43272), (52, 43266), (56, 43242), (59, 43233), (68, 43200), (74, 43173), (99, 43041), (100, 43038), (108, 42978),

Gene: Lulwa\_50 Start: 43766, Stop: 43146, Start Num: 23

Candidate Starts for Lulwa\_50:

(Start: 23 @43766 has 316 MA's), (Start: 33 @43670 has 1 MA's), (50, 43568), (51, 43565), (52, 43559), (56, 43535), (59, 43526), (68, 43493), (74, 43466), (99, 43334), (100, 43331), (108, 43271),

Gene: Lumine\_49 Start: 43469, Stop: 42849, Start Num: 23

Candidate Starts for Lumine\_49:

(Start: 23 @43469 has 316 MA's), (Start: 33 @43373 has 1 MA's), (50, 43271), (51, 43268), (52, 43262), (56, 43238), (59, 43229), (68, 43196), (74, 43169), (99, 43037), (100, 43034), (108, 42974),

Gene: MRabcd\_49 Start: 43479, Stop: 42859, Start Num: 23

Candidate Starts for MRabcd\_49:

(Start: 23 @43479 has 316 MA's), (Start: 33 @43383 has 1 MA's), (50, 43281), (51, 43278), (52, 43272), (56, 43248), (59, 43239), (68, 43206), (74, 43179), (99, 43047), (100, 43044), (108, 42984),

Gene: Mag7\_49 Start: 43403, Stop: 42783, Start Num: 23

Candidate Starts for Mag7\_49:

(Start: 23 @43403 has 316 MA's), (Start: 33 @43307 has 1 MA's), (50, 43205), (51, 43202), (52, 43196), (56, 43172), (59, 43163), (68, 43130), (74, 43103), (99, 42971), (100, 42968), (108, 42908),

Gene: Magic8\_50 Start: 43838, Stop: 43218, Start Num: 23

Candidate Starts for Magic8\_50:

(Start: 23 @43838 has 316 MA's), (Start: 33 @43742 has 1 MA's), (50, 43640), (51, 43637), (52, 43631), (56, 43607), (59, 43598), (68, 43565), (74, 43538), (99, 43406), (100, 43403), (108, 43343),

Gene: Magpie\_44 Start: 44170, Stop: 43559, Start Num: 23

Candidate Starts for Magpie\_44:

(Start: 23 @44170 has 316 MA's), (Start: 33 @44080 has 1 MA's), (52, 43966), (56, 43942), (60, 43930), (72, 43879), (91, 43792), (95, 43768), (98, 43747), (99, 43744), (111, 43669),

Gene: Mahdia\_29 Start: 23020, Stop: 22475, Start Num: 24

Candidate Starts for Mahdia\_29:

(Start: 24 @23020 has 5 MA's), (38, 22903), (47, 22864), (73, 22753), (102, 22648), (106, 22621), (107, 22603), (108, 22600), (109, 22597), (122, 22513),

Gene: MakoManhole\_46 Start: 38880, Stop: 38386, Start Num: 29

Candidate Starts for MakoManhole\_46:

(Start: 29 @38880 has 51 MA's), (42, 38781), (53, 38739), (61, 38700), (64, 38688), (71, 38667), (73, 38655), (83, 38619), (93, 38595), (98, 38559), (100, 38553), (108, 38490), (113, 38472),

Gene: Mana\_49 Start: 43488, Stop: 42868, Start Num: 23

Candidate Starts for Mana\_49:

(Start: 23 @43488 has 316 MA's), (Start: 33 @43392 has 1 MA's), (50, 43290), (51, 43287), (52, 43281), (56, 43257), (59, 43248), (68, 43215), (74, 43188), (99, 43056), (100, 43053), (108, 42993),

Gene: Manad\_50 Start: 43748, Stop: 43128, Start Num: 23

Candidate Starts for Manad\_50:

(Start: 23 @43748 has 316 MA's), (Start: 33 @43652 has 1 MA's), (36, 43625), (50, 43550), (51, 43547), (52, 43541), (56, 43517), (59, 43508), (68, 43475), (74, 43448), (99, 43316), (100, 43313), (108, 43253),

Gene: Mariokart\_43 Start: 36418, Stop: 35924, Start Num: 29

Candidate Starts for Mariokart\_43:

(Start: 29 @36418 has 51 MA's), (44, 36313), (61, 36238), (64, 36226), (71, 36205), (73, 36193), (93, 36139), (96, 36115), (98, 36103), (100, 36097), (105, 36061), (107, 36040), (113, 36019), (124, 35938),

Gene: Marley1013\_48 Start: 43994, Stop: 43449, Start Num: 25

Candidate Starts for Marley1013\_48:

(Start: 25 @43994 has 46 MA's), (45, 43844), (67, 43757), (71, 43742), (73, 43730), (83, 43700), (92, 43679), (98, 43640), (100, 43634), (101, 43625), (105, 43598),

Gene: Marlia\_48 Start: 43197, Stop: 42652, Start Num: 25

Candidate Starts for Marlia\_48:

(Start: 25 @43197 has 46 MA's), (45, 43047), (67, 42960), (71, 42945), (73, 42933), (83, 42903), (92, 42882), (98, 42843), (100, 42837), (101, 42828), (105, 42801),

Gene: Maru\_49 Start: 43431, Stop: 42811, Start Num: 23

Candidate Starts for Maru\_49:

(Start: 23 @43431 has 316 MA's), (Start: 33 @43335 has 1 MA's), (50, 43233), (51, 43230), (52, 43224), (56, 43200), (59, 43191), (68, 43158), (74, 43131), (99, 42999), (100, 42996), (108, 42936),

Gene: Maskar\_50 Start: 43469, Stop: 42849, Start Num: 23

Candidate Starts for Maskar\_50:

(Start: 23 @43469 has 316 MA's), (Start: 33 @43373 has 1 MA's), (50, 43271), (51, 43268), (52, 43262), (56, 43238), (59, 43229), (68, 43196), (74, 43169), (99, 43037), (100, 43034), (108, 42974),

Gene: MasterPo\_49 Start: 43490, Stop: 42963, Start Num: 29

Candidate Starts for MasterPo\_49:

(21, 43580), (Start: 29 @43490 has 51 MA's), (73, 43247), (83, 43217), (88, 43214), (90, 43202), (92, 43196), (98, 43157), (100, 43151), (103, 43136), (120, 43004),

Gene: Matalotodo\_50 Start: 43783, Stop: 43163, Start Num: 23

Candidate Starts for Matalotodo\_50:

(Start: 23 @43783 has 316 MA's), (Start: 33 @43687 has 1 MA's), (50, 43585), (51, 43582), (52, 43576), (56, 43552), (59, 43543), (68, 43510), (74, 43483), (99, 43351), (100, 43348), (108, 43288),

Gene: Mcshane\_49 Start: 43480, Stop: 42860, Start Num: 23

Candidate Starts for Mcshane\_49:

(Start: 23 @43480 has 316 MA's), (Start: 33 @43384 has 1 MA's), (50, 43282), (51, 43279), (52, 43273), (56, 43249), (59, 43240), (68, 43207), (74, 43180), (99, 43048), (100, 43045), (108, 42985),

Gene: Mecca\_49 Start: 43486, Stop: 42866, Start Num: 23

Candidate Starts for Mecca\_49:

(Start: 23 @43486 has 316 MA's), (Start: 33 @43390 has 1 MA's), (50, 43288), (51, 43285), (52, 43279), (56, 43255), (59, 43246), (68, 43213), (74, 43186), (99, 43054), (100, 43051), (108, 42991),

Gene: Megamind20\_50 Start: 43508, Stop: 42888, Start Num: 23

Candidate Starts for Megamind20\_50:

(Start: 23 @43508 has 316 MA's), (Start: 33 @43412 has 1 MA's), (50, 43310), (51, 43307), (52, 43301), (56, 43277), (59, 43268), (68, 43235), (74, 43208), (99, 43076), (100, 43073), (108, 43013),

Gene: Megatron\_51 Start: 43916, Stop: 43296, Start Num: 23

Candidate Starts for Megatron\_51:

(Start: 23 @43916 has 316 MA's), (Start: 33 @43820 has 1 MA's), (50, 43718), (51, 43715), (52, 43709), (56, 43685), (59, 43676), (68, 43643), (74, 43616), (99, 43484), (100, 43481), (108, 43421),

Gene: Melc17\_50 Start: 43778, Stop: 43158, Start Num: 23

Candidate Starts for Melc17\_50:

(Start: 23 @43778 has 316 MA's), (Start: 33 @43682 has 1 MA's), (50, 43580), (51, 43577), (52, 43571), (56, 43547), (59, 43538), (68, 43505), (74, 43478), (99, 43346), (100, 43343), (108, 43283),

Gene: MelsMeow\_50 Start: 43522, Stop: 42902, Start Num: 23

Candidate Starts for MelsMeow\_50:

(Start: 23 @43522 has 316 MA's), (Start: 33 @43426 has 1 MA's), (50, 43324), (51, 43321), (52, 43315), (56, 43291), (59, 43282), (68, 43249), (74, 43222), (99, 43090), (100, 43087), (108, 43027),

Gene: Mesh1\_50 Start: 43795, Stop: 43175, Start Num: 23

Candidate Starts for Mesh1\_50:

(10, 43909), (17, 43882), (20, 43870), (Start: 23 @43795 has 316 MA's), (Start: 33 @43699 has 1 MA's), (50, 43597), (51, 43594), (52, 43588), (56, 43564), (59, 43555), (68, 43522), (74, 43495), (99, 43363), (100, 43360), (108, 43300),

Gene: Mesmerelda\_51 Start: 43490, Stop: 42870, Start Num: 23

Candidate Starts for Mesmerelda\_51:

(Start: 23 @43490 has 316 MA's), (Start: 33 @43394 has 1 MA's), (50, 43292), (51, 43289), (52, 43283), (56, 43259), (59, 43250), (68, 43217), (74, 43190), (99, 43058), (100, 43055), (108, 42995),

Gene: MichaelPhcott\_49 Start: 43400, Stop: 42780, Start Num: 23

Candidate Starts for MichaelPhcott\_49:

(Start: 23 @43400 has 316 MA's), (Start: 33 @43304 has 1 MA's), (50, 43202), (51, 43199), (52, 43193), (56, 43169), (59, 43160), (68, 43127), (74, 43100), (99, 42968), (100, 42965), (108, 42905),

Gene: Mikota\_50 Start: 43766, Stop: 43146, Start Num: 23

Candidate Starts for Mikota\_50:

(Start: 23 @43766 has 316 MA's), (Start: 33 @43670 has 1 MA's), (50, 43568), (51, 43565), (52, 43559), (56, 43535), (59, 43526), (68, 43493), (74, 43466), (99, 43334), (100, 43331), (108, 43271),

Gene: MiniBoss\_50 Start: 43772, Stop: 43152, Start Num: 23

Candidate Starts for MiniBoss\_50:

(Start: 23 @43772 has 316 MA's), (Start: 33 @43676 has 1 MA's), (50, 43574), (51, 43571), (52, 43565), (56, 43541), (59, 43532), (68, 43499), (74, 43472), (99, 43340), (100, 43337), (108, 43277),

Gene: MitKao\_50 Start: 43498, Stop: 42878, Start Num: 23

Candidate Starts for MitKao\_50:

(Start: 23 @43498 has 316 MA's), (Start: 33 @43402 has 1 MA's), (50, 43300), (51, 43297), (52, 43291), (56, 43267), (59, 43258), (68, 43225), (74, 43198), (99, 43066), (100, 43063), (108, 43003),

Gene: Mithril\_45 Start: 44338, Stop: 43727, Start Num: 23

Candidate Starts for Mithril\_45:

(Start: 23 @44338 has 316 MA's), (Start: 33 @44248 has 1 MA's), (52, 44134), (56, 44110), (60, 44098), (72, 44047), (91, 43960), (95, 43936), (98, 43915), (99, 43912), (111, 43837), (112, 43834),

Gene: MmasiCarm\_48 Start: 43198, Stop: 42653, Start Num: 25

Candidate Starts for MmasiCarm\_48:

(Start: 25 @43198 has 46 MA's), (45, 43048), (67, 42961), (71, 42946), (73, 42934), (83, 42904), (92, 42883), (98, 42844), (100, 42838), (101, 42829), (105, 42802),

Gene: Morgushi\_50 Start: 43487, Stop: 42867, Start Num: 23

Candidate Starts for Morgushi\_50:

(Start: 23 @43487 has 316 MA's), (Start: 33 @43391 has 1 MA's), (50, 43289), (51, 43286), (52, 43280), (56, 43256), (59, 43247), (68, 43214), (74, 43187), (99, 43055), (100, 43052), (108, 42992),

Gene: Morrissey\_30 Start: 24584, Stop: 24024, Start Num: 24

Candidate Starts for Morrissey\_30:

(Start: 24 @24584 has 5 MA's), (37, 24458), (44, 24422), (61, 24347), (66, 24332), (73, 24302), (102, 24197), (108, 24149), (109, 24146), (112, 24134), (113, 24131), (122, 24062),

Gene: Mortcellus\_47 Start: 43850, Stop: 43305, Start Num: 25

Candidate Starts for Mortcellus\_47:

(Start: 25 @43850 has 46 MA's), (45, 43700), (67, 43613), (71, 43598), (73, 43586), (83, 43556), (92, 43535), (98, 43496), (100, 43490), (101, 43481), (105, 43454),

Gene: Morty\_51 Start: 43925, Stop: 43305, Start Num: 23

Candidate Starts for Morty\_51:

(Start: 23 @43925 has 316 MA's), (Start: 33 @43829 has 1 MA's), (50, 43727), (51, 43724), (52, 43718), (56, 43694), (59, 43685), (68, 43652), (74, 43625), (99, 43493), (100, 43490), (108, 43430),

Gene: Morty007\_48 Start: 43994, Stop: 43449, Start Num: 25

Candidate Starts for Morty007\_48:

(Start: 25 @43994 has 46 MA's), (45, 43844), (67, 43757), (71, 43742), (73, 43730), (83, 43700), (92, 43679), (98, 43640), (100, 43634), (101, 43625), (105, 43598),

Gene: Mosaic\_49 Start: 43492, Stop: 42872, Start Num: 23

Candidate Starts for Mosaic\_49:

(Start: 23 @43492 has 316 MA's), (Start: 33 @43396 has 1 MA's), (50, 43294), (51, 43291), (52, 43285), (56, 43261), (59, 43252), (68, 43219), (74, 43192), (99, 43060), (100, 43057), (108, 42997),

Gene: MossRose\_46 Start: 38859, Stop: 38365, Start Num: 29

Candidate Starts for MossRose\_46:

(Start: 29 @38859 has 51 MA's), (42, 38760), (53, 38718), (61, 38679), (64, 38667), (71, 38646), (73, 38634), (83, 38598), (93, 38574), (98, 38538), (100, 38532), (108, 38469), (113, 38451),

Gene: MrPhizzler\_49 Start: 43489, Stop: 42869, Start Num: 23

Candidate Starts for MrPhizzler\_49:

(Start: 23 @43489 has 316 MA's), (Start: 33 @43393 has 1 MA's), (50, 43291), (51, 43288), (52, 43282), (56, 43258), (59, 43249), (68, 43216), (74, 43189), (99, 43057), (100, 43054), (108, 42994),

Gene: Mudslide\_45 Start: 44597, Stop: 43983, Start Num: 23

Candidate Starts for Mudslide\_45:

(Start: 23 @44597 has 316 MA's), (Start: 33 @44504 has 1 MA's), (52, 44390), (56, 44366), (60, 44354), (72, 44303), (91, 44216), (95, 44192), (98, 44171), (99, 44168), (111, 44093),

Gene: Mulan\_50 Start: 43642, Stop: 43022, Start Num: 23

Candidate Starts for Mulan\_50:

(Start: 23 @43642 has 316 MA's), (Start: 33 @43546 has 1 MA's), (50, 43444), (51, 43441), (52, 43435), (56, 43411), (59, 43402), (68, 43369), (74, 43342), (99, 43210), (100, 43207), (108, 43147),

Gene: Murdoc\_50 Start: 43773, Stop: 43153, Start Num: 23

Candidate Starts for Murdoc\_50:

(Start: 23 @43773 has 316 MA's), (Start: 33 @43677 has 1 MA's), (50, 43575), (51, 43572), (52, 43566), (56, 43542), (59, 43533), (68, 43500), (74, 43473), (99, 43341), (100, 43338), (108, 43278),

Gene: Mutante\_49 Start: 43492, Stop: 42872, Start Num: 23

Candidate Starts for Mutante\_49:

(Start: 23 @43492 has 316 MA's), (Start: 33 @43396 has 1 MA's), (50, 43294), (51, 43291), (52, 43285), (56, 43261), (59, 43252), (68, 43219), (74, 43192), (99, 43060), (100, 43057), (108, 42997),

Gene: Mysterious\_50 Start: 44824, Stop: 44207, Start Num: 23

Candidate Starts for Mysterious\_50:

(Start: 23 @44824 has 316 MA's), (34, 44692), (51, 44584), (56, 44554), (99, 44395), (105, 44356), (108, 44332), (114, 44281), (117, 44272),

Gene: NHagos\_44 Start: 37460, Stop: 36969, Start Num: 29

Candidate Starts for NHagos\_44:

(Start: 29 @37460 has 51 MA's), (61, 37280), (64, 37268), (73, 37235), (88, 37202), (90, 37190), (91, 37187), (98, 37148), (105, 37106), (113, 37064), (120, 37001),

Gene: Nacho\_0051 Start: 43919, Stop: 43299, Start Num: 23

Candidate Starts for Nacho\_0051:

(Start: 23 @43919 has 316 MA's), (Start: 33 @43823 has 1 MA's), (50, 43721), (51, 43718), (52, 43712), (56, 43688), (59, 43679), (68, 43646), (74, 43619), (99, 43487), (100, 43484), (108, 43424),

Gene: Nanao\_44 Start: 43297, Stop: 42689, Start Num: 23

Candidate Starts for Nanao\_44:

(Start: 23 @43297 has 316 MA's), (Start: 33 @43207 has 1 MA's), (52, 43093), (56, 43069), (60, 43057), (72, 43006), (91, 42919), (95, 42895), (98, 42874), (99, 42871), (112, 42793),

Gene: Nangang\_49 Start: 44779, Stop: 44177, Start Num: 23

Candidate Starts for Nangang\_49:

(Start: 23 @44779 has 316 MA's), (34, 44659), (51, 44551), (52, 44545), (56, 44521), (95, 44386), (98, 44365), (105, 44323), (108, 44299), (116, 44242),

Gene: Nathan\_51 Start: 43817, Stop: 43197, Start Num: 23

Candidate Starts for Nathan\_51:

(Start: 23 @43817 has 316 MA's), (Start: 33 @43721 has 1 MA's), (50, 43619), (51, 43616), (52, 43610), (56, 43586), (59, 43577), (68, 43544), (74, 43517), (99, 43385), (100, 43382), (108, 43322),



Gene: Nehemiah\_49 Start: 44824, Stop: 44207, Start Num: 23

Candidate Starts for Nehemiah\_49:

(Start: 23 @44824 has 316 MA's), (34, 44692), (51, 44584), (56, 44554), (99, 44395), (105, 44356), (108, 44332), (114, 44281), (117, 44272),

Gene: Neos5\_48 Start: 44009, Stop: 43464, Start Num: 25

Candidate Starts for Neos5\_48:

(Start: 25 @44009 has 46 MA's), (45, 43859), (67, 43772), (71, 43757), (73, 43745), (83, 43715), (92, 43694), (98, 43655), (100, 43649), (101, 43640), (105, 43613),

Gene: Newman\_50 Start: 43790, Stop: 43170, Start Num: 23

Candidate Starts for Newman\_50:

(Start: 23 @43790 has 316 MA's), (Start: 33 @43694 has 1 MA's), (36, 43667), (50, 43592), (51, 43589), (52, 43583), (56, 43559), (59, 43550), (68, 43517), (74, 43490), (99, 43358), (100, 43355), (108, 43295),

Gene: Nicole21\_50 Start: 43794, Stop: 43174, Start Num: 23

Candidate Starts for Nicole21\_50:

(Start: 23 @43794 has 316 MA's), (Start: 33 @43698 has 1 MA's), (50, 43596), (51, 43593), (52, 43587), (56, 43563), (59, 43554), (68, 43521), (74, 43494), (99, 43362), (100, 43359), (108, 43299),

Gene: Nigel\_44 Start: 43182, Stop: 42571, Start Num: 23

Candidate Starts for Nigel\_44:

(Start: 23 @43182 has 316 MA's), (Start: 33 @43092 has 1 MA's), (50, 42987), (52, 42978), (56, 42954), (60, 42942), (80, 42849), (91, 42804), (95, 42780), (98, 42759), (99, 42756), (109, 42690), (112, 42678),

Gene: Nozo\_48 Start: 43974, Stop: 43429, Start Num: 25

Candidate Starts for Nozo\_48:

(Start: 25 @43974 has 46 MA's), (40, 43845), (45, 43824), (67, 43737), (71, 43722), (73, 43710), (83, 43680), (92, 43659), (98, 43620), (100, 43614), (101, 43605), (105, 43578),

Gene: Numberten\_50 Start: 43785, Stop: 43165, Start Num: 23

Candidate Starts for Numberten\_50:

(Start: 23 @43785 has 316 MA's), (Start: 33 @43689 has 1 MA's), (50, 43587), (51, 43584), (52, 43578), (56, 43554), (59, 43545), (68, 43512), (74, 43485), (99, 43353), (100, 43350), (108, 43290),

Gene: Nyala\_49 Start: 43484, Stop: 42864, Start Num: 23

Candidate Starts for Nyala\_49:

(Start: 23 @43484 has 316 MA's), (Start: 33 @43388 has 1 MA's), (50, 43286), (51, 43283), (52, 43277), (56, 43253), (59, 43244), (68, 43211), (74, 43184), (99, 43052), (100, 43049), (108, 42989),

Gene: OSmaximus\_51 Start: 43958, Stop: 43338, Start Num: 23

Candidate Starts for OSmaximus\_51:

(Start: 23 @43958 has 316 MA's), (Start: 33 @43862 has 1 MA's), (50, 43760), (51, 43757), (52, 43751), (56, 43727), (59, 43718), (68, 43685), (74, 43658), (99, 43526), (100, 43523), (108, 43463),

Gene: Obutu\_48 Start: 43198, Stop: 42653, Start Num: 25

Candidate Starts for Obutu\_48:

(Start: 25 @43198 has 46 MA's), (45, 43048), (67, 42961), (71, 42946), (73, 42934), (83, 42904), (92, 42883), (98, 42844), (100, 42838), (101, 42829), (105, 42802),

Gene: Olak\_49 Start: 43487, Stop: 42867, Start Num: 23

Candidate Starts for Olak\_49:

(Start: 23 @43487 has 316 MA's), (Start: 33 @43391 has 1 MA's), (50, 43289), (51, 43286), (52, 43280), (56, 43256), (59, 43247), (68, 43214), (74, 43187), (99, 43055), (100, 43052), (108, 42992),

Gene: Oline\_49 Start: 43347, Stop: 42727, Start Num: 23

Candidate Starts for Oline\_49:

(Start: 23 @43347 has 316 MA's), (Start: 33 @43251 has 1 MA's), (50, 43149), (51, 43146), (52, 43140), (56, 43116), (59, 43107), (68, 43074), (74, 43047), (99, 42915), (100, 42912), (108, 42852),

Gene: Olive\_50 Start: 43774, Stop: 43154, Start Num: 23

Candidate Starts for Olive\_50:

(Start: 23 @43774 has 316 MA's), (Start: 33 @43678 has 1 MA's), (50, 43576), (51, 43573), (52, 43567), (56, 43543), (59, 43534), (68, 43501), (74, 43474), (99, 43342), (100, 43339), (108, 43279),

Gene: OliverWalter\_50 Start: 43796, Stop: 43176, Start Num: 23

Candidate Starts for OliverWalter\_50:

(Start: 23 @43796 has 316 MA's), (Start: 33 @43700 has 1 MA's), (50, 43598), (51, 43595), (52, 43589), (56, 43565), (59, 43556), (68, 43523), (74, 43496), (99, 43364), (100, 43361), (108, 43301),

Gene: Olivio\_47 Start: 43067, Stop: 42522, Start Num: 25

Candidate Starts for Olivio\_47:

(Start: 25 @43067 has 46 MA's), (45, 42917), (67, 42830), (71, 42815), (73, 42803), (83, 42773), (92, 42752), (98, 42713), (100, 42707), (101, 42698), (105, 42671),

Gene: Omniscient\_50 Start: 43793, Stop: 43173, Start Num: 23

Candidate Starts for Omniscient\_50:

(Start: 23 @43793 has 316 MA's), (Start: 33 @43697 has 1 MA's), (50, 43595), (51, 43592), (52, 43586), (56, 43562), (59, 43553), (68, 43520), (74, 43493), (99, 43361), (100, 43358), (108, 43298),

Gene: Oosterbaan\_50 Start: 43781, Stop: 43161, Start Num: 23

Candidate Starts for Oosterbaan\_50:

(Start: 23 @43781 has 316 MA's), (Start: 33 @43685 has 1 MA's), (50, 43583), (51, 43580), (52, 43574), (56, 43550), (59, 43541), (68, 43508), (74, 43481), (99, 43349), (100, 43346), (108, 43286),

Gene: Opia\_49 Start: 43484, Stop: 42945, Start Num: 29

Candidate Starts for Opia\_49:

(21, 43574), (Start: 29 @43484 has 51 MA's), (73, 43229), (83, 43199), (88, 43196), (90, 43184), (92, 43178), (98, 43139), (100, 43133), (103, 43118), (120, 42986), (125, 42965),

Gene: OrangeOswald\_48 Start: 43215, Stop: 42670, Start Num: 25

Candidate Starts for OrangeOswald\_48:

(Start: 25 @43215 has 46 MA's), (40, 43086), (45, 43065), (67, 42978), (71, 42963), (73, 42951), (83, 42921), (92, 42900), (98, 42861), (100, 42855), (101, 42846), (105, 42819),

Gene: Orfeu\_49 Start: 43480, Stop: 42860, Start Num: 23

Candidate Starts for Orfeu\_49:

(Start: 23 @43480 has 316 MA's), (Start: 33 @43384 has 1 MA's), (50, 43282), (51, 43279), (52, 43273), (56, 43249), (59, 43240), (68, 43207), (74, 43180), (99, 43048), (100, 43045), (108, 42985),

Gene: Orion\_51 Start: 43914, Stop: 43294, Start Num: 23

Candidate Starts for Orion\_51:

(Start: 23 @43914 has 316 MA's), (Start: 33 @43818 has 1 MA's), (50, 43716), (51, 43713), (52, 43707), (56, 43683), (59, 43674), (68, 43641), (74, 43614), (99, 43482), (100, 43479), (108, 43419),

Gene: Orwigg\_49 Start: 43480, Stop: 42860, Start Num: 23

Candidate Starts for Orwigg\_49:

(Start: 23 @43480 has 316 MA's), (Start: 33 @43384 has 1 MA's), (50, 43282), (51, 43279), (52, 43273), (56, 43249), (59, 43240), (68, 43207), (74, 43180), (99, 43048), (100, 43045), (108, 42985),

Gene: PG1\_51 Start: 43927, Stop: 43307, Start Num: 23

Candidate Starts for PG1\_51:

(Start: 23 @43927 has 316 MA's), (Start: 33 @43831 has 1 MA's), (50, 43729), (51, 43726), (52, 43720), (56, 43696), (59, 43687), (68, 43654), (74, 43627), (99, 43495), (100, 43492), (108, 43432),

Gene: Pacifista\_49 Start: 43483, Stop: 42863, Start Num: 23

Candidate Starts for Pacifista\_49:

(Start: 23 @43483 has 316 MA's), (Start: 33 @43387 has 1 MA's), (50, 43285), (51, 43282), (52, 43276), (56, 43252), (59, 43243), (68, 43210), (74, 43183), (99, 43051), (100, 43048), (108, 42988),

Gene: PenguinLover67\_51 Start: 45911, Stop: 45282, Start Num: 23

Candidate Starts for PenguinLover67\_51:

(Start: 23 @45911 has 316 MA's), (Start: 31 @45830 has 1 MA's), (48, 45713), (51, 45701), (52, 45695), (56, 45671), (74, 45599), (80, 45563), (84, 45542), (86, 45536), (95, 45491), (98, 45470), (104, 45446), (108, 45404),

Gene: Phaedrus\_46 Start: 43135, Stop: 42590, Start Num: 25

Candidate Starts for Phaedrus\_46:

(Start: 25 @43135 has 46 MA's), (40, 43006), (45, 42985), (67, 42898), (71, 42883), (73, 42871), (83, 42841), (92, 42820), (98, 42781), (100, 42775), (101, 42766), (105, 42739),

Gene: Phamished\_51 Start: 43934, Stop: 43314, Start Num: 23

Candidate Starts for Phamished\_51:

(Start: 23 @43934 has 316 MA's), (Start: 33 @43838 has 1 MA's), (50, 43736), (51, 43733), (52, 43727), (56, 43703), (59, 43694), (68, 43661), (74, 43634), (99, 43502), (100, 43499), (108, 43439),

Gene: Phantasmagoria\_49 Start: 43482, Stop: 42958, Start Num: 29

Candidate Starts for Phantasmagoria\_49:

(21, 43572), (Start: 29 @43482 has 51 MA's), (73, 43242), (83, 43212), (88, 43209), (90, 43197), (92, 43191), (98, 43152), (100, 43146), (103, 43131), (120, 42999), (125, 42978),

Gene: Phareon\_50 Start: 43482, Stop: 42862, Start Num: 23

Candidate Starts for Phareon\_50:

(Start: 23 @43482 has 316 MA's), (Start: 33 @43386 has 1 MA's), (50, 43284), (51, 43281), (52, 43275), (56, 43251), (59, 43242), (68, 43209), (74, 43182), (99, 43050), (100, 43047), (108, 42987),

Gene: PhatCats2014\_51 Start: 43931, Stop: 43311, Start Num: 23

Candidate Starts for PhatCats2014\_51:

(Start: 23 @43931 has 316 MA's), (Start: 33 @43835 has 1 MA's), (50, 43733), (51, 43730), (52, 43724), (56, 43700), (59, 43691), (68, 43658), (74, 43631), (99, 43499), (100, 43496), (108, 43436),

Gene: PhatLouie\_50 Start: 43785, Stop: 43165, Start Num: 23

Candidate Starts for PhatLouie\_50:

(Start: 23 @43785 has 316 MA's), (Start: 33 @43689 has 1 MA's), (50, 43587), (51, 43584), (52, 43578), (56, 43554), (59, 43545), (68, 43512), (74, 43485), (99, 43353), (100, 43350), (108, 43290),

Gene: Phayeta\_49 Start: 43080, Stop: 42535, Start Num: 25

Candidate Starts for Phayeta\_49:

(Start: 25 @43080 has 46 MA's), (45, 42930), (67, 42843), (71, 42828), (73, 42816), (83, 42786), (92, 42765), (98, 42726), (100, 42720), (101, 42711), (105, 42684),

Gene: Phelemich\_48 Start: 44823, Stop: 44206, Start Num: 23

Candidate Starts for Phelemich\_48:

(Start: 23 @44823 has 316 MA's), (34, 44691), (51, 44583), (56, 44553), (99, 44394), (105, 44355), (108, 44331), (114, 44280), (117, 44271),

Gene: PhenghisKhan\_49 Start: 43406, Stop: 42786, Start Num: 23

Candidate Starts for PhenghisKhan\_49:

(Start: 23 @43406 has 316 MA's), (Start: 33 @43310 has 1 MA's), (50, 43208), (51, 43205), (52, 43199), (56, 43175), (59, 43166), (68, 43133), (74, 43106), (99, 42974), (100, 42971), (108, 42911),

Gene: Pherdinand\_51 Start: 43943, Stop: 43323, Start Num: 23

Candidate Starts for Pherdinand\_51:

(Start: 23 @43943 has 316 MA's), (Start: 33 @43847 has 1 MA's), (50, 43745), (51, 43742), (52, 43736), (56, 43712), (59, 43703), (68, 43670), (74, 43643), (99, 43511), (100, 43508), (108, 43448),

Gene: Phergie\_50 Start: 43398, Stop: 42778, Start Num: 23

Candidate Starts for Phergie\_50:

(Start: 23 @43398 has 316 MA's), (Start: 33 @43302 has 1 MA's), (50, 43200), (51, 43197), (52, 43191), (56, 43167), (59, 43158), (68, 43125), (74, 43098), (99, 42966), (100, 42963), (108, 42903),

Gene: Philly\_47 Start: 43066, Stop: 42521, Start Num: 25

Candidate Starts for Philly\_47:

(Start: 25 @43066 has 46 MA's), (40, 42937), (45, 42916), (67, 42829), (71, 42814), (73, 42802), (83, 42772), (92, 42751), (98, 42712), (100, 42706), (101, 42697), (105, 42670),

Gene: Phipps\_50 Start: 43762, Stop: 43142, Start Num: 23

Candidate Starts for Phipps\_50:

(Start: 23 @43762 has 316 MA's), (Start: 33 @43666 has 1 MA's), (50, 43564), (51, 43561), (52, 43555), (56, 43531), (59, 43522), (68, 43489), (74, 43462), (99, 43330), (100, 43327), (108, 43267),

Gene: Phleuron\_49 Start: 43403, Stop: 42783, Start Num: 23

Candidate Starts for Phleuron\_49:

(Start: 23 @43403 has 316 MA's), (Start: 33 @43307 has 1 MA's), (50, 43205), (51, 43202), (52, 43196), (56, 43172), (59, 43163), (68, 43130), (74, 43103), (99, 42971), (100, 42968), (108, 42908),

Gene: Phlyer\_48 Start: 43954, Stop: 43409, Start Num: 25

Candidate Starts for Phlyer\_48:

(Start: 25 @43954 has 46 MA's), (45, 43804), (67, 43717), (71, 43702), (73, 43690), (83, 43660), (92, 43639), (98, 43600), (100, 43594), (101, 43585), (105, 43558),

Gene: PhrankReynolds\_48 Start: 43403, Stop: 42783, Start Num: 23

Candidate Starts for PhrankReynolds\_48:

(Start: 23 @43403 has 316 MA's), (Start: 33 @43307 has 1 MA's), (50, 43205), (51, 43202), (52, 43196), (56, 43172), (59, 43163), (68, 43130), (74, 43103), (99, 42971), (100, 42968), (108, 42908),

Gene: PhrodoBaggins\_50 Start: 43910, Stop: 43290, Start Num: 23

Candidate Starts for PhrodoBaggins\_50:

(Start: 23 @43910 has 316 MA's), (Start: 33 @43814 has 1 MA's), (50, 43712), (51, 43709), (52, 43703), (56, 43679), (59, 43670), (68, 43637), (74, 43610), (99, 43478), (100, 43475), (108, 43415),

Gene: Phunky\_50 Start: 43779, Stop: 43159, Start Num: 23

Candidate Starts for Phunky\_50:

(Start: 23 @43779 has 316 MA's), (Start: 33 @43683 has 1 MA's), (50, 43581), (51, 43578), (52, 43572), (56, 43548), (59, 43539), (68, 43506), (74, 43479), (99, 43347), (100, 43344), (108, 43284),

Gene: Piglet\_0050 Start: 43904, Stop: 43284, Start Num: 23

Candidate Starts for Piglet\_0050:

(Start: 23 @43904 has 316 MA's), (Start: 33 @43808 has 1 MA's), (50, 43706), (51, 43703), (52, 43697), (56, 43673), (59, 43664), (68, 43631), (74, 43604), (99, 43472), (100, 43469), (108, 43409),

Gene: Pine5\_41 Start: 34571, Stop: 33969, Start Num: 25

Candidate Starts for Pine5\_41:

(Start: 25 @34571 has 46 MA's), (82, 34244), (89, 34223), (98, 34172), (121, 34010), (126, 33986),

Gene: PinheadLarry\_50 Start: 43492, Stop: 42872, Start Num: 23

Candidate Starts for PinheadLarry\_50:

(Start: 23 @43492 has 316 MA's), (Start: 33 @43396 has 1 MA's), (50, 43294), (51, 43291), (52, 43285), (56, 43261), (59, 43252), (68, 43219), (74, 43192), (99, 43060), (100, 43057), (108, 42997),

Gene: Pinkman\_49 Start: 43341, Stop: 42721, Start Num: 23

Candidate Starts for Pinkman\_49:

(Start: 23 @43341 has 316 MA's), (Start: 33 @43245 has 1 MA's), (50, 43143), (51, 43140), (52, 43134), (56, 43110), (59, 43101), (68, 43068), (74, 43041), (82, 42999), (99, 42909), (100, 42906), (108, 42846),

Gene: Pipefish\_50 Start: 44607, Stop: 44062, Start Num: 25

Candidate Starts for Pipefish\_50:

(Start: 25 @44607 has 46 MA's), (40, 44478), (45, 44457), (67, 44370), (71, 44355), (73, 44343), (83, 44313), (92, 44292), (98, 44253), (100, 44247), (101, 44238), (105, 44211),

Gene: Pipsqueak\_50 Start: 43786, Stop: 43166, Start Num: 23

Candidate Starts for Pipsqueak\_50:

(Start: 23 @43786 has 316 MA's), (Start: 33 @43690 has 1 MA's), (50, 43588), (51, 43585), (52, 43579), (56, 43555), (59, 43546), (68, 43513), (74, 43486), (99, 43354), (100, 43351), (108, 43291),

Gene: Placalicious\_49 Start: 43479, Stop: 42859, Start Num: 23

Candidate Starts for Placalicious\_49:

(Start: 23 @43479 has 316 MA's), (Start: 33 @43383 has 1 MA's), (50, 43281), (51, 43278), (52, 43272), (56, 43248), (59, 43239), (68, 43206), (74, 43179), (99, 43047), (100, 43044), (108, 42984),

Gene: Plata\_50 Start: 43497, Stop: 42877, Start Num: 23

Candidate Starts for Plata\_50:

(Start: 23 @43497 has 316 MA's), (Start: 33 @43401 has 1 MA's), (50, 43299), (51, 43296), (52, 43290), (56, 43266), (59, 43257), (68, 43224), (74, 43197), (99, 43065), (100, 43062), (108, 43002),

Gene: Plmatters\_50 Start: 43782, Stop: 43162, Start Num: 23

Candidate Starts for Plmatters\_50:

(Start: 23 @43782 has 316 MA's), (Start: 33 @43686 has 1 MA's), (50, 43584), (51, 43581), (52, 43575), (56, 43551), (59, 43542), (68, 43509), (74, 43482), (99, 43350), (100, 43347), (108, 43287),

Gene: Podrick\_50 Start: 43773, Stop: 43153, Start Num: 23

Candidate Starts for Podrick\_50:

(Start: 23 @43773 has 316 MA's), (Start: 33 @43677 has 1 MA's), (50, 43575), (51, 43572), (52, 43566), (56, 43542), (59, 43533), (68, 43500), (74, 43473), (99, 43341), (100, 43338), (108, 43278),

Gene: Pops\_50 Start: 43797, Stop: 43177, Start Num: 23

Candidate Starts for Pops\_50:

(Start: 23 @43797 has 316 MA's), (Start: 33 @43701 has 1 MA's), (50, 43599), (51, 43596), (52, 43590), (56, 43566), (59, 43557), (68, 43524), (74, 43497), (99, 43365), (100, 43362), (108, 43302),

Gene: Poster\_44 Start: 43298, Stop: 42690, Start Num: 23

Candidate Starts for Poster\_44:

(Start: 23 @43298 has 316 MA's), (Start: 33 @43208 has 1 MA's), (52, 43094), (56, 43070), (60, 43058), (72, 43007), (91, 42920), (95, 42896), (98, 42875), (99, 42872), (112, 42794),

Gene: Potter\_49 Start: 43509, Stop: 42889, Start Num: 23

Candidate Starts for Potter\_49:

(Start: 23 @43509 has 316 MA's), (Start: 33 @43413 has 1 MA's), (50, 43311), (51, 43308), (52, 43302), (56, 43278), (59, 43269), (68, 43236), (74, 43209), (99, 43077), (100, 43074), (108, 43014),

Gene: Prickles\_50 Start: 43773, Stop: 43153, Start Num: 23

Candidate Starts for Prickles\_50:

(Start: 23 @43773 has 316 MA's), (Start: 33 @43677 has 1 MA's), (50, 43575), (51, 43572), (52, 43566), (56, 43542), (59, 43533), (68, 43500), (74, 43473), (99, 43341), (100, 43338), (108, 43278),

Gene: Prince\_45 Start: 44507, Stop: 43893, Start Num: 23

Candidate Starts for Prince\_45:

(Start: 23 @44507 has 316 MA's), (Start: 33 @44414 has 1 MA's), (52, 44300), (56, 44276), (60, 44264), (72, 44213), (91, 44126), (95, 44102), (98, 44081), (99, 44078), (111, 44003),

Gene: PrinceCharming\_49 Start: 43581, Stop: 43066, Start Num: 29

Candidate Starts for PrinceCharming\_49:

(21, 43671), (Start: 29 @43581 has 51 MA's), (73, 43350), (83, 43320), (88, 43317), (90, 43305), (92, 43299), (98, 43260), (100, 43254), (103, 43239), (120, 43107),

Gene: ProfessorX\_50 Start: 43774, Stop: 43154, Start Num: 23

Candidate Starts for ProfessorX\_50:

(Start: 23 @43774 has 316 MA's), (Start: 33 @43678 has 1 MA's), (50, 43576), (51, 43573), (52, 43567), (56, 43543), (59, 43534), (68, 43501), (74, 43474), (99, 43342), (100, 43339), (108, 43279),

Gene: Puhltonio\_50 Start: 43783, Stop: 43163, Start Num: 23

Candidate Starts for Puhltonio\_50:

(Start: 23 @43783 has 316 MA's), (Start: 33 @43687 has 1 MA's), (50, 43585), (51, 43582), (52, 43576), (56, 43552), (59, 43543), (68, 43510), (74, 43483), (99, 43351), (100, 43348), (108, 43288),

Gene: Puppies\_29 Start: 23497, Stop: 22922, Start Num: 24

Candidate Starts for Puppies\_29:

(22, 23515), (Start: 24 @23497 has 5 MA's), (49, 23302), (73, 23203), (88, 23173), (100, 23110), (109, 23044), (110, 23038), (119, 22969), (120, 22966),

Gene: QueenBeane\_50 Start: 43773, Stop: 43153, Start Num: 23

Candidate Starts for QueenBeane\_50:

(Start: 23 @43773 has 316 MA's), (Start: 33 @43677 has 1 MA's), (50, 43575), (51, 43572), (52, 43566), (56, 43542), (59, 43533), (68, 43500), (74, 43473), (99, 43341), (100, 43338), (108, 43278),

Gene: QueenPie\_44 Start: 44416, Stop: 43805, Start Num: 23

Candidate Starts for QueenPie\_44:

(Start: 23 @44416 has 316 MA's), (Start: 33 @44326 has 1 MA's), (52, 44212), (56, 44188), (60, 44176), (72, 44125), (91, 44038), (95, 44014), (98, 43993), (99, 43990), (112, 43912),

Gene: Quesadilla\_51 Start: 45918, Stop: 45289, Start Num: 23

Candidate Starts for Quesadilla\_51:

(Start: 23 @45918 has 316 MA's), (48, 45717), (52, 45699), (56, 45675), (86, 45540), (95, 45495), (98, 45474), (103, 45453), (108, 45408),

Gene: Quisquilliae\_50 Start: 43810, Stop: 43190, Start Num: 23

Candidate Starts for Quisquilliae\_50:

(Start: 23 @43810 has 316 MA's), (Start: 33 @43714 has 1 MA's), (50, 43612), (51, 43609), (52, 43603), (56, 43579), (59, 43570), (68, 43537), (74, 43510), (99, 43378), (100, 43375), (108, 43315),

Gene: Qyrzula\_46 Start: 43601, Stop: 43104, Start Num: 29

Candidate Starts for Qyrzula\_46:

(21, 43691), (Start: 29 @43601 has 51 MA's), (73, 43388), (83, 43358), (88, 43355), (90, 43343), (92, 43337), (98, 43298), (100, 43292), (103, 43277), (120, 43145), (125, 43124),

Gene: RagingRooster\_48 Start: 43216, Stop: 42671, Start Num: 25

Candidate Starts for RagingRooster\_48:

(Start: 25 @43216 has 46 MA's), (40, 43087), (45, 43066), (67, 42979), (71, 42964), (73, 42952), (83, 42922), (92, 42901), (98, 42862), (100, 42856), (101, 42847), (105, 42820),

Gene: RawrgerThat\_46 Start: 44358, Stop: 43744, Start Num: 23

Candidate Starts for RawrgerThat\_46:

(Start: 23 @44358 has 316 MA's), (Start: 33 @44265 has 1 MA's), (52, 44151), (56, 44127), (60, 44115), (72, 44064), (91, 43977), (95, 43953), (98, 43932), (99, 43929), (111, 43854),

Gene: RedMaple\_50 Start: 43924, Stop: 43304, Start Num: 23

Candidate Starts for RedMaple\_50:

(Start: 23 @43924 has 316 MA's), (Start: 33 @43828 has 1 MA's), (50, 43726), (51, 43723), (52, 43717), (56, 43693), (59, 43684), (68, 43651), (74, 43624), (99, 43492), (100, 43489), (108, 43429),

Gene: Reprobate\_49 Start: 44828, Stop: 44211, Start Num: 23

Candidate Starts for Reprobate\_49:

(Start: 23 @44828 has 316 MA's), (34, 44696), (51, 44588), (56, 44558), (99, 44399), (105, 44360), (108, 44336), (114, 44285), (117, 44276),

Gene: Rhinoforte\_49 Start: 43603, Stop: 43079, Start Num: 29

Candidate Starts for Rhinoforte\_49:

(21, 43693), (Start: 29 @43603 has 51 MA's), (73, 43363), (83, 43333), (88, 43330), (90, 43318), (92, 43312), (98, 43273), (100, 43267), (120, 43120),

Gene: Rich\_48 Start: 44614, Stop: 44012, Start Num: 23

Candidate Starts for Rich\_48:

(11, 44725), (Start: 23 @44614 has 316 MA's), (34, 44494), (51, 44386), (52, 44380), (56, 44356), (99, 44197), (105, 44158), (108, 44134), (114, 44083),

Gene: Ricotta\_49 Start: 43496, Stop: 42876, Start Num: 23

Candidate Starts for Ricotta\_49:

(Start: 23 @43496 has 316 MA's), (Start: 33 @43400 has 1 MA's), (50, 43298), (51, 43295), (52, 43289), (56, 43265), (59, 43256), (68, 43223), (74, 43196), (99, 43064), (100, 43061), (108, 43001),

Gene: Riggan\_50 Start: 43769, Stop: 43149, Start Num: 23

Candidate Starts for Riggan\_50:

(Start: 23 @43769 has 316 MA's), (Start: 33 @43673 has 1 MA's), (50, 43571), (51, 43568), (52, 43562), (56, 43538), (59, 43529), (68, 43496), (74, 43469), (99, 43337), (100, 43334), (108, 43274),

Gene: Rimu\_52 Start: 43509, Stop: 42889, Start Num: 23

Candidate Starts for Rimu\_52:

(Start: 23 @43509 has 316 MA's), (Start: 33 @43413 has 1 MA's), (50, 43311), (51, 43308), (52, 43302), (56, 43278), (59, 43269), (68, 43236), (74, 43209), (99, 43077), (100, 43074), (108, 43014),

Gene: Rinkes\_50 Start: 45449, Stop: 44859, Start Num: 23

Candidate Starts for Rinkes\_50:

(Start: 23 @45449 has 316 MA's), (32, 45347), (39, 45290), (41, 45278), (43, 45272), (48, 45245), (55, 45212), (56, 45203), (70, 45149), (74, 45128), (114, 44927), (117, 44918),

Gene: Rita130\_49 Start: 44704, Stop: 44099, Start Num: 23

Candidate Starts for Rita130\_49:

(Start: 23 @44704 has 316 MA's), (34, 44581), (51, 44473), (52, 44467), (56, 44443), (105, 44245), (108, 44221), (116, 44164),

Gene: Rita1961\_48 Start: 43199, Stop: 42654, Start Num: 25

Candidate Starts for Rita1961\_48:

(Start: 25 @43199 has 46 MA's), (45, 43049), (67, 42962), (71, 42947), (73, 42935), (83, 42905), (92, 42884), (98, 42845), (100, 42839), (101, 42830), (105, 42803),

Gene: Riverton\_49 Start: 43800, Stop: 43180, Start Num: 23

Candidate Starts for Riverton\_49:

(10, 43914), (17, 43887), (20, 43875), (Start: 23 @43800 has 316 MA's), (Start: 33 @43704 has 1 MA's), (50, 43602), (51, 43599), (52, 43593), (56, 43569), (59, 43560), (68, 43527), (74, 43500), (99, 43368), (100, 43365), (108, 43305),

Gene: Robyn\_49 Start: 43365, Stop: 42745, Start Num: 23

Candidate Starts for Robyn\_49:

(Start: 23 @43365 has 316 MA's), (Start: 33 @43269 has 1 MA's), (50, 43167), (51, 43164), (52, 43158), (56, 43134), (59, 43125), (68, 43092), (74, 43065), (99, 42933), (100, 42930), (108, 42870),

Gene: Roliet\_50 Start: 43782, Stop: 43162, Start Num: 23

Candidate Starts for Roliet\_50:

(Start: 23 @43782 has 316 MA's), (Start: 33 @43686 has 1 MA's), (50, 43584), (51, 43581), (52, 43575), (56, 43551), (59, 43542), (68, 43509), (74, 43482), (99, 43350), (100, 43347), (108, 43287),

Gene: RomaT\_48 Start: 43989, Stop: 43444, Start Num: 25

Candidate Starts for RomaT\_48:

(Start: 25 @43989 has 46 MA's), (45, 43839), (67, 43752), (71, 43737), (73, 43725), (83, 43695), (92, 43674), (98, 43635), (100, 43629), (101, 43620), (105, 43593),

Gene: Roscoe\_51 Start: 44019, Stop: 43399, Start Num: 23

Candidate Starts for Roscoe\_51:

(Start: 23 @44019 has 316 MA's), (Start: 33 @43923 has 1 MA's), (50, 43821), (51, 43818), (52, 43812), (56, 43788), (59, 43779), (68, 43746), (74, 43719), (99, 43587), (100, 43584), (108, 43524),



Gene: Rosebush\_48 Start: 43615, Stop: 43076, Start Num: 29

Candidate Starts for Rosebush\_48:

(21, 43705), (Start: 29 @43615 has 51 MA's), (73, 43360), (83, 43330), (88, 43327), (90, 43315), (92, 43309), (98, 43270), (100, 43264), (103, 43249), (120, 43117), (125, 43096),

Gene: Roy17\_50 Start: 43473, Stop: 42853, Start Num: 23

Candidate Starts for Roy17\_50:

(Start: 23 @43473 has 316 MA's), (Start: 33 @43377 has 1 MA's), (50, 43275), (51, 43272), (52, 43266), (56, 43242), (59, 43233), (68, 43200), (74, 43173), (99, 43041), (100, 43038), (108, 42978),

Gene: SDcharge11\_50 Start: 43760, Stop: 43140, Start Num: 23

Candidate Starts for SDcharge11\_50:

(Start: 23 @43760 has 316 MA's), (Start: 33 @43664 has 1 MA's), (50, 43562), (51, 43559), (52, 43553), (56, 43529), (59, 43520), (68, 43487), (74, 43460), (82, 43418), (99, 43328), (100, 43325), (108, 43265),

Gene: Sabella\_48 Start: 43475, Stop: 42951, Start Num: 29

Candidate Starts for Sabella\_48:

(21, 43565), (Start: 29 @43475 has 51 MA's), (73, 43235), (83, 43205), (88, 43202), (90, 43190), (92, 43184), (98, 43145), (100, 43139), (103, 43124), (120, 42992), (125, 42971),

Gene: Saguaro\_51 Start: 45544, Stop: 44918, Start Num: 23

Candidate Starts for Saguaro\_51:

(4, 45787), (5, 45754), (Start: 23 @45544 has 316 MA's), (48, 45355), (51, 45343), (52, 45337), (56, 45313), (68, 45268), (80, 45205), (85, 45181), (86, 45178), (93, 45151), (98, 45112), (100, 45106), (104, 45088), (108, 45046), (117, 44986),

Gene: Samaymay\_50 Start: 43773, Stop: 43153, Start Num: 23

Candidate Starts for Samaymay\_50:

(Start: 23 @43773 has 316 MA's), (Start: 33 @43677 has 1 MA's), (50, 43575), (51, 43572), (52, 43566), (56, 43542), (59, 43533), (68, 43500), (74, 43473), (99, 43341), (100, 43338), (108, 43278),

Gene: SassyCat97\_49 Start: 43500, Stop: 42880, Start Num: 23

Candidate Starts for SassyCat97\_49:

(Start: 23 @43500 has 316 MA's), (Start: 33 @43404 has 1 MA's), (50, 43302), (51, 43299), (52, 43293), (56, 43269), (59, 43260), (68, 43227), (74, 43200), (99, 43068), (100, 43065), (108, 43005),

Gene: Schadenfreude\_49 Start: 43339, Stop: 42719, Start Num: 23

Candidate Starts for Schadenfreude\_49:

(Start: 23 @43339 has 316 MA's), (Start: 33 @43243 has 1 MA's), (50, 43141), (51, 43138), (52, 43132), (56, 43108), (59, 43099), (68, 43066), (74, 43039), (99, 42907), (100, 42904), (108, 42844),

Gene: Schueller\_49 Start: 43498, Stop: 42878, Start Num: 23

Candidate Starts for Schueller\_49:

(Start: 23 @43498 has 316 MA's), (Start: 33 @43402 has 1 MA's), (50, 43300), (51, 43297), (52, 43291), (56, 43267), (59, 43258), (68, 43225), (74, 43198), (99, 43066), (100, 43063), (108, 43003),

Gene: Scoot17C\_51 Start: 43916, Stop: 43296, Start Num: 23

Candidate Starts for Scoot17C\_51:

(Start: 23 @43916 has 316 MA's), (Start: 33 @43820 has 1 MA's), (50, 43718), (51, 43715), (52, 43709), (56, 43685), (59, 43676), (68, 43643), (74, 43616), (99, 43484), (100, 43481), (108, 43421),

Gene: Scrick\_50 Start: 43509, Stop: 42889, Start Num: 23

Candidate Starts for Scrick\_50:

(Start: 23 @43509 has 316 MA's), (Start: 33 @43413 has 1 MA's), (50, 43311), (51, 43308), (52, 43302), (56, 43278), (59, 43269), (68, 43236), (74, 43209), (99, 43077), (100, 43074), (108, 43014),

Gene: Selr12\_50 Start: 43512, Stop: 42892, Start Num: 23

Candidate Starts for Selr12\_50:

(Start: 23 @43512 has 316 MA's), (Start: 33 @43416 has 1 MA's), (50, 43314), (51, 43311), (52, 43305), (56, 43281), (59, 43272), (68, 43239), (74, 43212), (99, 43080), (100, 43077), (108, 43017),

Gene: Serendipitous\_49 Start: 44529, Stop: 43927, Start Num: 23

Candidate Starts for Serendipitous\_49:

(Start: 23 @44529 has 316 MA's), (34, 44409), (51, 44301), (52, 44295), (56, 44271), (69, 44223), (74, 44199), (95, 44136), (105, 44073), (108, 44049),

Gene: Serendipity\_50 Start: 43797, Stop: 43177, Start Num: 23

Candidate Starts for Serendipity\_50:

(Start: 23 @43797 has 316 MA's), (Start: 33 @43701 has 1 MA's), (50, 43599), (51, 43596), (52, 43590), (56, 43566), (59, 43557), (68, 43524), (74, 43497), (99, 43365), (100, 43362), (108, 43302),

Gene: Serpentine\_0050 Start: 43796, Stop: 43176, Start Num: 23

Candidate Starts for Serpentine\_0050:

(Start: 23 @43796 has 316 MA's), (Start: 33 @43700 has 1 MA's), (50, 43598), (51, 43595), (52, 43589), (56, 43565), (59, 43556), (68, 43523), (74, 43496), (99, 43364), (100, 43361), (108, 43301),

Gene: Shatter\_43 Start: 36579, Stop: 36085, Start Num: 29

Candidate Starts for Shatter\_43:

(Start: 29 @36579 has 51 MA's), (73, 36354), (96, 36276), (98, 36264), (105, 36222), (113, 36180), (124, 36099),

Gene: Sheila\_50 Start: 43822, Stop: 43202, Start Num: 23

Candidate Starts for Sheila\_50:

(Start: 23 @43822 has 316 MA's), (Start: 33 @43726 has 1 MA's), (50, 43624), (51, 43621), (52, 43615), (56, 43591), (59, 43582), (68, 43549), (74, 43522), (99, 43390), (100, 43387), (108, 43327),

Gene: Shenandoah\_48 Start: 43188, Stop: 42643, Start Num: 25

Candidate Starts for Shenandoah\_48:

(Start: 25 @43188 has 46 MA's), (40, 43059), (45, 43038), (67, 42951), (71, 42936), (73, 42924), (83, 42894), (92, 42873), (98, 42834), (100, 42828), (101, 42819), (105, 42792),

Gene: Shenyu\_49 Start: 44779, Stop: 44177, Start Num: 23

Candidate Starts for Shenyu\_49:

(Start: 23 @44779 has 316 MA's), (34, 44659), (51, 44551), (52, 44545), (56, 44521), (95, 44386), (98, 44365), (105, 44323), (108, 44299), (116, 44242),

Gene: ShiVal\_50 Start: 43780, Stop: 43160, Start Num: 23

Candidate Starts for ShiVal\_50:

(Start: 23 @43780 has 316 MA's), (Start: 33 @43684 has 1 MA's), (50, 43582), (51, 43579), (52, 43573), (56, 43549), (59, 43540), (68, 43507), (74, 43480), (99, 43348), (100, 43345), (108, 43285),

Gene: Sigman\_51 Start: 43907, Stop: 43287, Start Num: 23

Candidate Starts for Sigman\_51:

(Start: 23 @43907 has 316 MA's), (Start: 33 @43811 has 1 MA's), (50, 43709), (51, 43706), (52, 43700), (56, 43676), (59, 43667), (68, 43634), (74, 43607), (99, 43475), (100, 43472), (108, 43412),

Gene: SilverBell\_50 Start: 43802, Stop: 43182, Start Num: 23

Candidate Starts for SilverBell\_50:

(9, 43916), (16, 43889), (19, 43877), (Start: 23 @43802 has 316 MA's), (Start: 33 @43706 has 1 MA's), (50, 43604), (51, 43601), (52, 43595), (56, 43571), (59, 43562), (68, 43529), (74, 43502), (99, 43370), (100, 43367), (108, 43307),

Gene: Simielle\_49 Start: 43466, Stop: 42846, Start Num: 23

Candidate Starts for Simielle\_49:

(Start: 23 @43466 has 316 MA's), (Start: 33 @43370 has 1 MA's), (50, 43268), (51, 43265), (52, 43259), (56, 43235), (59, 43226), (68, 43193), (74, 43166), (99, 43034), (100, 43031), (108, 42971),

Gene: SirBeauregard\_50 Start: 43479, Stop: 42859, Start Num: 23

Candidate Starts for SirBeauregard\_50:

(Start: 23 @43479 has 316 MA's), (Start: 33 @43383 has 1 MA's), (50, 43281), (51, 43278), (52, 43272), (56, 43248), (59, 43239), (68, 43206), (74, 43179), (99, 43047), (100, 43044), (108, 42984),

Gene: SirJeffery\_49 Start: 44703, Stop: 44098, Start Num: 23

Candidate Starts for SirJeffery\_49:

(Start: 23 @44703 has 316 MA's), (34, 44580), (51, 44472), (52, 44466), (56, 44442), (105, 44244), (108, 44220), (116, 44163),

Gene: Sisko\_43 Start: 37419, Stop: 36922, Start Num: 29

Candidate Starts for Sisko\_43:

(Start: 29 @37419 has 51 MA's), (61, 37236), (64, 37224), (71, 37203), (73, 37191), (98, 37101), (100, 37095), (105, 37059), (107, 37038), (113, 37017),

Gene: Skippy\_50 Start: 43767, Stop: 43147, Start Num: 23

Candidate Starts for Skippy\_50:

(Start: 23 @43767 has 316 MA's), (Start: 33 @43671 has 1 MA's), (50, 43569), (51, 43566), (52, 43560), (56, 43536), (59, 43527), (68, 43494), (74, 43467), (99, 43335), (100, 43332), (108, 43272),

Gene: Slatt\_50 Start: 43793, Stop: 43173, Start Num: 23

Candidate Starts for Slatt\_50:

(Start: 23 @43793 has 316 MA's), (Start: 33 @43697 has 1 MA's), (50, 43595), (51, 43592), (52, 43586), (56, 43562), (59, 43553), (68, 43520), (74, 43493), (99, 43361), (100, 43358), (108, 43298),

Gene: SlippinJimmy\_48 Start: 43981, Stop: 43436, Start Num: 25

Candidate Starts for SlippinJimmy\_48:

(Start: 25 @43981 has 46 MA's), (45, 43831), (67, 43744), (71, 43729), (73, 43717), (83, 43687), (92, 43666), (98, 43627), (100, 43621), (101, 43612), (105, 43585),

Gene: Soile\_50 Start: 43496, Stop: 42876, Start Num: 23

Candidate Starts for Soile\_50:

(Start: 23 @43496 has 316 MA's), (Start: 33 @43400 has 1 MA's), (50, 43298), (51, 43295), (52, 43289), (56, 43265), (59, 43256), (68, 43223), (74, 43196), (99, 43064), (100, 43061), (108, 43001),

Gene: Solosis\_49 Start: 43494, Stop: 42874, Start Num: 23

Candidate Starts for Solosis\_49:

(Start: 23 @43494 has 316 MA's), (Start: 33 @43398 has 1 MA's), (50, 43296), (51, 43293), (52, 43287), (56, 43263), (59, 43254), (68, 43221), (74, 43194), (99, 43062), (100, 43059), (108, 42999),

Gene: Sophia\_49 Start: 43488, Stop: 42868, Start Num: 23

Candidate Starts for Sophia\_49:

(Start: 23 @43488 has 316 MA's), (Start: 33 @43392 has 1 MA's), (50, 43290), (51, 43287), (52, 43281), (56, 43257), (59, 43248), (68, 43215), (74, 43188), (99, 43056), (100, 43053), (108, 42993),

Gene: Soto\_50 Start: 43794, Stop: 43174, Start Num: 23

Candidate Starts for Soto\_50:

(Start: 23 @43794 has 316 MA's), (Start: 33 @43698 has 1 MA's), (50, 43596), (51, 43593), (52, 43587), (56, 43563), (59, 43554), (68, 43521), (74, 43494), (82, 43452), (99, 43362), (100, 43359), (108, 43299),

Gene: Sour\_48 Start: 41266, Stop: 40751, Start Num: 27

Candidate Starts for Sour\_48:

(Start: 27 @41266 has 1 MA's), (Start: 29 @41257 has 51 MA's), (61, 41065), (64, 41053), (73, 41020), (88, 40987), (93, 40966), (98, 40930), (105, 40888), (113, 40846), (122, 40777),

Gene: Spartan300\_50 Start: 43779, Stop: 43159, Start Num: 23

Candidate Starts for Spartan300\_50:

(Start: 23 @43779 has 316 MA's), (Start: 33 @43683 has 1 MA's), (50, 43581), (51, 43578), (52, 43572), (56, 43548), (59, 43539), (68, 43506), (74, 43479), (99, 43347), (100, 43344), (108, 43284),

Gene: Squid\_50 Start: 43500, Stop: 42880, Start Num: 23

Candidate Starts for Squid\_50:

(Start: 23 @43500 has 316 MA's), (Start: 33 @43404 has 1 MA's), (50, 43302), (51, 43299), (52, 43293), (56, 43269), (59, 43260), (68, 43227), (74, 43200), (99, 43068), (100, 43065), (108, 43005),

Gene: Squiggle\_50 Start: 43503, Stop: 42883, Start Num: 23

Candidate Starts for Squiggle\_50:

(Start: 23 @43503 has 316 MA's), (Start: 33 @43407 has 1 MA's), (50, 43305), (51, 43302), (52, 43296), (56, 43272), (59, 43263), (68, 43230), (74, 43203), (99, 43071), (100, 43068), (108, 43008),

Gene: StAugustine\_64 Start: 52426, Stop: 51896, Start Num: 33

Candidate Starts for StAugustine\_64:

(Start: 33 @52426 has 1 MA's), (52, 52306), (56, 52282), (65, 52249), (75, 52213), (79, 52186), (80, 52183), (87, 52153), (88, 52150), (98, 52093), (120, 51946),

Gene: Stinger\_44 Start: 42875, Stop: 42267, Start Num: 23

Candidate Starts for Stinger\_44:

(7, 43013), (11, 42983), (14, 42968), (Start: 23 @42875 has 316 MA's), (Start: 33 @42785 has 1 MA's), (52, 42671), (56, 42647), (60, 42635), (91, 42497), (95, 42473), (97, 42461), (98, 42452), (99, 42449), (112, 42371),

Gene: StinkyVeggy\_50 Start: 44848, Stop: 44249, Start Num: 23

Candidate Starts for StinkyVeggy\_50:

(11, 44956), (Start: 23 @44848 has 316 MA's), (34, 44731), (51, 44623), (52, 44617), (56, 44593), (95, 44458), (105, 44395), (108, 44371), (116, 44314),

Gene: Struggle\_49 Start: 43335, Stop: 42715, Start Num: 23

Candidate Starts for Struggle\_49:

(Start: 23 @43335 has 316 MA's), (Start: 33 @43239 has 1 MA's), (50, 43137), (51, 43134), (52, 43128), (56, 43104), (59, 43095), (68, 43062), (74, 43035), (82, 42993), (99, 42903), (100, 42900), (108, 42840),

Gene: Suffolk\_50 Start: 43784, Stop: 43164, Start Num: 23

Candidate Starts for Suffolk\_50:

(Start: 23 @43784 has 316 MA's), (Start: 33 @43688 has 1 MA's), (50, 43586), (51, 43583), (52, 43577), (56, 43553), (59, 43544), (68, 43511), (74, 43484), (99, 43352), (100, 43349), (108, 43289),

Gene: Suigeneris\_50 Start: 44705, Stop: 44103, Start Num: 23

Candidate Starts for Suigeneris\_50:

(11, 44816), (Start: 23 @44705 has 316 MA's), (34, 44585), (51, 44477), (52, 44471), (56, 44447), (105, 44249), (108, 44225),

Gene: Surely\_50 Start: 43790, Stop: 43170, Start Num: 23

Candidate Starts for Surely\_50:

(Start: 23 @43790 has 316 MA's), (Start: 33 @43694 has 1 MA's), (50, 43592), (51, 43589), (52, 43583), (56, 43559), (59, 43550), (68, 43517), (74, 43490), (99, 43358), (100, 43355), (108, 43295),

Gene: SwainyDoc\_48 Start: 43211, Stop: 42666, Start Num: 25

Candidate Starts for SwainyDoc\_48:

(Start: 25 @43211 has 46 MA's), (45, 43061), (67, 42974), (71, 42959), (73, 42947), (83, 42917), (92, 42896), (98, 42857), (100, 42851), (101, 42842), (105, 42815),

Gene: Swiphy\_52 Start: 43785, Stop: 43165, Start Num: 23

Candidate Starts for Swiphy\_52:

(Start: 23 @43785 has 316 MA's), (Start: 33 @43689 has 1 MA's), (50, 43587), (51, 43584), (52, 43578), (56, 43554), (59, 43545), (68, 43512), (74, 43485), (99, 43353), (100, 43350), (108, 43290),

Gene: Swish\_51 Start: 43929, Stop: 43309, Start Num: 23

Candidate Starts for Swish\_51:

(Start: 23 @43929 has 316 MA's), (Start: 33 @43833 has 1 MA's), (50, 43731), (51, 43728), (52, 43722), (56, 43698), (59, 43689), (68, 43656), (74, 43629), (99, 43497), (100, 43494), (108, 43434),

Gene: SynergyX\_48 Start: 43216, Stop: 42671, Start Num: 25

Candidate Starts for SynergyX\_48:

(Start: 25 @43216 has 46 MA's), (40, 43087), (45, 43066), (67, 42979), (71, 42964), (73, 42952), (83, 42922), (92, 42901), (98, 42862), (100, 42856), (101, 42847), (105, 42820),

Gene: TA17A\_50 Start: 43465, Stop: 42941, Start Num: 29

Candidate Starts for TA17A\_50:

(21, 43555), (Start: 29 @43465 has 51 MA's), (73, 43225), (83, 43195), (88, 43192), (90, 43180), (92, 43174), (98, 43135), (100, 43129), (103, 43114), (120, 42982), (125, 42961),

Gene: TPA2\_56 Start: 43487, Stop: 42981, Start Num: 29

Candidate Starts for TPA2\_56:

(Start: 29 @43487 has 51 MA's), (61, 43298), (64, 43286), (90, 43211), (98, 43166), (105, 43124),

Gene: TallGrassMM\_50 Start: 43403, Stop: 42783, Start Num: 23

Candidate Starts for TallGrassMM\_50:

(Start: 23 @43403 has 316 MA's), (Start: 33 @43307 has 1 MA's), (50, 43205), (51, 43202), (52, 43196), (56, 43172), (59, 43163), (68, 43130), (74, 43103), (99, 42971), (100, 42968), (108, 42908),

Gene: Telesworld\_49 Start: 43482, Stop: 42862, Start Num: 23

Candidate Starts for Telesworld\_49:

(Start: 23 @43482 has 316 MA's), (Start: 33 @43386 has 1 MA's), (50, 43284), (51, 43281), (52, 43275), (56, 43251), (59, 43242), (68, 43209), (74, 43182), (99, 43050), (100, 43047), (108, 42987),

Gene: Thonko\_48 Start: 41869, Stop: 41228, Start Num: 23

Candidate Starts for Thonko\_48:

(Start: 23 @41869 has 316 MA's), (30, 41794), (Start: 31 @41782 has 1 MA's), (35, 41749), (44, 41677), (48, 41659), (50, 41650), (51, 41647), (52, 41641), (56, 41617), (74, 41545), (81, 41506), (86, 41485), (98, 41419), (104, 41395), (113, 41335), (114, 41302), (117, 41293), (124, 41254),

Gene: Thora\_50 Start: 43789, Stop: 43169, Start Num: 23

Candidate Starts for Thora\_50:

(Start: 23 @43789 has 316 MA's), (Start: 33 @43693 has 1 MA's), (50, 43591), (51, 43588), (52, 43582), (56, 43558), (59, 43549), (68, 43516), (74, 43489), (99, 43357), (100, 43354), (108, 43294),

Gene: ThreeOh3D2\_51 Start: 43922, Stop: 43302, Start Num: 23

Candidate Starts for ThreeOh3D2\_51:

(Start: 23 @43922 has 316 MA's), (Start: 33 @43826 has 1 MA's), (50, 43724), (51, 43721), (52, 43715), (56, 43691), (59, 43682), (68, 43649), (74, 43622), (99, 43490), (100, 43487), (108, 43427),

Gene: Thunderbird\_49 Start: 43490, Stop: 42870, Start Num: 23

Candidate Starts for Thunderbird\_49:

(Start: 23 @43490 has 316 MA's), (Start: 33 @43394 has 1 MA's), (50, 43292), (51, 43289), (52, 43283), (56, 43259), (59, 43250), (68, 43217), (74, 43190), (99, 43058), (100, 43055), (108, 42995),

Gene: Timmi\_49 Start: 43489, Stop: 42869, Start Num: 23

Candidate Starts for Timmi\_49:

(Start: 23 @43489 has 316 MA's), (Start: 33 @43393 has 1 MA's), (50, 43291), (51, 43288), (52, 43282), (56, 43258), (59, 43249), (68, 43216), (74, 43189), (99, 43057), (100, 43054), (108, 42994),

Gene: Tinciduntolum\_50 Start: 43627, Stop: 43088, Start Num: 29

Candidate Starts for Tinciduntolum\_50:

(21, 43717), (Start: 29 @43627 has 51 MA's), (73, 43372), (83, 43342), (88, 43339), (90, 43327), (92, 43321), (98, 43282), (100, 43276), (103, 43261), (120, 43129),

Gene: TinyTerror\_48 Start: 43201, Stop: 42656, Start Num: 25

Candidate Starts for TinyTerror\_48:

(Start: 25 @43201 has 46 MA's), (45, 43051), (67, 42964), (71, 42949), (73, 42937), (83, 42907), (92, 42886), (98, 42847), (100, 42841), (101, 42832), (105, 42805),

Gene: TomBombadil\_50 Start: 43774, Stop: 43154, Start Num: 23

Candidate Starts for TomBombadil\_50:

(Start: 23 @43774 has 316 MA's), (Start: 33 @43678 has 1 MA's), (50, 43576), (51, 43573), (52, 43567), (56, 43543), (59, 43534), (68, 43501), (74, 43474), (99, 43342), (100, 43339), (108, 43279),

Gene: Tomlarah\_50 Start: 43777, Stop: 43157, Start Num: 23

Candidate Starts for Tomlarah\_50:

(Start: 23 @43777 has 316 MA's), (Start: 33 @43681 has 1 MA's), (50, 43579), (51, 43576), (52, 43570), (56, 43546), (59, 43537), (68, 43504), (74, 43477), (99, 43345), (100, 43342), (108, 43282),

Gene: Toni\_49 Start: 43481, Stop: 42861, Start Num: 23

Candidate Starts for Toni\_49:

(Start: 23 @43481 has 316 MA's), (Start: 33 @43385 has 1 MA's), (50, 43283), (51, 43280), (52, 43274), (56, 43250), (59, 43241), (68, 43208), (74, 43181), (99, 43049), (100, 43046), (108, 42986),

Gene: TooFast2Furius\_53 Start: 44019, Stop: 43399, Start Num: 23

Candidate Starts for TooFast2Furius\_53:

(Start: 23 @44019 has 316 MA's), (Start: 33 @43923 has 1 MA's), (50, 43821), (51, 43818), (52, 43812), (56, 43788), (59, 43779), (68, 43746), (74, 43719), (99, 43587), (100, 43584), (108, 43524),

Gene: Tooj\_50 Start: 43856, Stop: 43236, Start Num: 23

Candidate Starts for Tooj\_50:

(Start: 23 @43856 has 316 MA's), (Start: 33 @43760 has 1 MA's), (50, 43658), (51, 43655), (52, 43649), (56, 43625), (59, 43616), (68, 43583), (74, 43556), (99, 43424), (100, 43421), (108, 43361),

Gene: Tres\_49 Start: 43478, Stop: 42954, Start Num: 29

Candidate Starts for Tres\_49:

(21, 43568), (Start: 29 @43478 has 51 MA's), (73, 43238), (83, 43208), (88, 43205), (90, 43193), (92, 43187), (98, 43148), (100, 43142), (103, 43127), (120, 42995), (125, 42974),

Gene: Trine\_28 Start: 23072, Stop: 22572, Start Num: 31

Candidate Starts for Trine\_28:

(26, 23123), (Start: 31 @23072 has 1 MA's), (47, 22973), (92, 22802), (107, 22700), (108, 22697), (123, 22604),

Gene: True\_49 Start: 43487, Stop: 42867, Start Num: 23

Candidate Starts for True\_49:

(Start: 23 @43487 has 316 MA's), (Start: 33 @43391 has 1 MA's), (50, 43289), (51, 43286), (52, 43280), (56, 43256), (59, 43247), (68, 43214), (74, 43187), (99, 43055), (100, 43052), (108, 42992),

Gene: Trypo\_51 Start: 43918, Stop: 43298, Start Num: 23

Candidate Starts for Trypo\_51:

(Start: 23 @43918 has 316 MA's), (Start: 33 @43822 has 1 MA's), (50, 43720), (51, 43717), (52, 43711), (56, 43687), (59, 43678), (68, 43645), (74, 43618), (99, 43486), (100, 43483), (108, 43423),

Gene: Tydolla\_48 Start: 43950, Stop: 43405, Start Num: 25

Candidate Starts for Tydolla\_48:

(Start: 25 @43950 has 46 MA's), (45, 43800), (67, 43713), (71, 43698), (73, 43686), (83, 43656), (92, 43635), (98, 43596), (100, 43590), (101, 43581), (105, 43554),

Gene: TyrionL\_49 Start: 43343, Stop: 42723, Start Num: 23

Candidate Starts for TyrionL\_49:

(Start: 23 @43343 has 316 MA's), (Start: 33 @43247 has 1 MA's), (50, 43145), (51, 43142), (52, 43136), (56, 43112), (59, 43103), (68, 43070), (74, 43043), (82, 43001), (99, 42911), (100, 42908), (108, 42848),

Gene: UAch1\_50 Start: 43811, Stop: 43191, Start Num: 23

Candidate Starts for UAch1\_50:

(Start: 23 @43811 has 316 MA's), (Start: 33 @43715 has 1 MA's), (50, 43613), (51, 43610), (52, 43604), (56, 43580), (59, 43571), (68, 43538), (74, 43511), (99, 43379), (100, 43376), (108, 43316),

Gene: UncleHowie\_50 Start: 43486, Stop: 42866, Start Num: 23

Candidate Starts for UncleHowie\_50:

(Start: 23 @43486 has 316 MA's), (Start: 33 @43390 has 1 MA's), (50, 43288), (51, 43285), (52, 43279), (56, 43255), (59, 43246), (68, 43213), (74, 43186), (99, 43054), (100, 43051), (108, 42991),

Gene: Usavi\_50 Start: 43785, Stop: 43165, Start Num: 23

Candidate Starts for Usavi\_50:

(Start: 23 @43785 has 316 MA's), (Start: 33 @43689 has 1 MA's), (50, 43587), (51, 43584), (52, 43578), (56, 43554), (59, 43545), (68, 43512), (74, 43485), (99, 43353), (100, 43350), (108, 43290),

Gene: Vaishali24\_49 Start: 43457, Stop: 42837, Start Num: 23

Candidate Starts for Vaishali24\_49:

(Start: 23 @43457 has 316 MA's), (Start: 33 @43361 has 1 MA's), (50, 43259), (51, 43256), (52, 43250), (56, 43226), (59, 43217), (68, 43184), (74, 43157), (99, 43025), (100, 43022), (108, 42962),

Gene: Valjean\_50 Start: 43782, Stop: 43162, Start Num: 23

Candidate Starts for Valjean\_50:

(Start: 23 @43782 has 316 MA's), (Start: 33 @43686 has 1 MA's), (50, 43584), (51, 43581), (52, 43575), (56, 43551), (59, 43542), (68, 43509), (74, 43482), (99, 43350), (100, 43347), (108, 43287),

Gene: Vaticameos\_46 Start: 41468, Stop: 40848, Start Num: 23

Candidate Starts for Vaticameos\_46:

(Start: 23 @41468 has 316 MA's), (Start: 33 @41372 has 1 MA's), (50, 41270), (51, 41267), (52, 41261), (56, 41237), (59, 41228), (68, 41195), (74, 41168), (99, 41036), (100, 41033), (108, 40973),

Gene: Veritas\_49 Start: 43364, Stop: 42744, Start Num: 23

Candidate Starts for Veritas\_49:

(Start: 23 @43364 has 316 MA's), (Start: 33 @43268 has 1 MA's), (50, 43166), (51, 43163), (52, 43157), (56, 43133), (59, 43124), (68, 43091), (74, 43064), (99, 42932), (100, 42929), (108, 42869),

Gene: Vic9\_00048 Start: 43999, Stop: 43463, Start Num: 29

Candidate Starts for Vic9\_00048:

(21, 44089), (Start: 29 @43999 has 51 MA's), (73, 43747), (83, 43717), (88, 43714), (90, 43702), (92, 43696), (98, 43657), (100, 43651), (103, 43636), (120, 43504),

Gene: Vincenzo\_46 Start: 44903, Stop: 44286, Start Num: 23

Candidate Starts for Vincenzo\_46:

(Start: 23 @44903 has 316 MA's), (Start: 33 @44801 has 1 MA's), (34, 44792), (47, 44714), (51, 44693), (52, 44687), (56, 44663), (74, 44594), (77, 44570), (78, 44564), (80, 44558), (84, 44540), (93, 44507), (95, 44489), (99, 44465), (100, 44462), (104, 44444), (112, 44387),

Gene: VioletZ\_47 Start: 44423, Stop: 43809, Start Num: 23

Candidate Starts for VioletZ\_47:

(Start: 23 @44423 has 316 MA's), (Start: 33 @44330 has 1 MA's), (52, 44216), (56, 44192), (60, 44180), (72, 44129), (91, 44042), (95, 44018), (98, 43997), (99, 43994), (111, 43919),

Gene: Virapocalypse\_50 Start: 43777, Stop: 43157, Start Num: 23

Candidate Starts for Virapocalypse\_50:

(Start: 23 @43777 has 316 MA's), (Start: 33 @43681 has 1 MA's), (50, 43579), (51, 43576), (52, 43570), (56, 43546), (59, 43537), (68, 43504), (74, 43477), (99, 43345), (100, 43342), (108, 43282),

Gene: Virgeve\_49 Start: 43554, Stop: 42934, Start Num: 23

Candidate Starts for Virgeve\_49:

(Start: 23 @43554 has 316 MA's), (Start: 33 @43458 has 1 MA's), (50, 43356), (51, 43353), (52, 43347), (56, 43323), (59, 43314), (68, 43281), (74, 43254), (99, 43122), (100, 43119), (108, 43059),

Gene: Vista\_50 Start: 43787, Stop: 43167, Start Num: 23

Candidate Starts for Vista\_50:



(Start: 23 @43787 has 316 MA's), (Start: 33 @43691 has 1 MA's), (50, 43589), (51, 43586), (52, 43580), (56, 43556), (59, 43547), (68, 43514), (74, 43487), (99, 43355), (100, 43352), (108, 43292),

Gene: Vivaldi\_51 Start: 44222, Stop: 43602, Start Num: 23

Candidate Starts for Vivaldi\_51:

(Start: 23 @44222 has 316 MA's), (Start: 33 @44126 has 1 MA's), (50, 44024), (51, 44021), (52, 44015), (56, 43991), (59, 43982), (68, 43949), (74, 43922), (99, 43790), (100, 43787), (108, 43727),

Gene: Vortex\_50 Start: 43484, Stop: 42864, Start Num: 23

Candidate Starts for Vortex\_50:

(Start: 23 @43484 has 316 MA's), (Start: 33 @43388 has 1 MA's), (50, 43286), (51, 43283), (52, 43277), (56, 43253), (59, 43244), (68, 43211), (74, 43184), (99, 43052), (100, 43049), (108, 42989),

Gene: Waleliano\_45 Start: 44339, Stop: 43728, Start Num: 23

Candidate Starts for Waleliano\_45:

(Start: 23 @44339 has 316 MA's), (Start: 33 @44249 has 1 MA's), (52, 44135), (56, 44111), (60, 44099), (72, 44048), (91, 43961), (95, 43937), (98, 43916), (99, 43913), (111, 43838), (112, 43835),

Gene: Wallhey\_49 Start: 43347, Stop: 42727, Start Num: 23

Candidate Starts for Wallhey\_49:

(Start: 23 @43347 has 316 MA's), (Start: 33 @43251 has 1 MA's), (50, 43149), (51, 43146), (52, 43140), (56, 43116), (59, 43107), (68, 43074), (74, 43047), (82, 43005), (99, 42915), (100, 42912), (108, 42852),

Gene: Waterdiva\_50 Start: 43779, Stop: 43159, Start Num: 23

Candidate Starts for Waterdiva\_50:

(Start: 23 @43779 has 316 MA's), (Start: 33 @43683 has 1 MA's), (50, 43581), (51, 43578), (52, 43572), (56, 43548), (59, 43539), (68, 43506), (74, 43479), (99, 43347), (100, 43344), (108, 43284),

Gene: Weher20\_50 Start: 43778, Stop: 43158, Start Num: 23

Candidate Starts for Weher20\_50:

(Start: 23 @43778 has 316 MA's), (Start: 33 @43682 has 1 MA's), (50, 43580), (51, 43577), (52, 43571), (56, 43547), (59, 43538), (68, 43505), (74, 43478), (99, 43346), (100, 43343), (108, 43283),

Gene: West99\_49 Start: 43613, Stop: 43074, Start Num: 29

Candidate Starts for West99\_49:

(21, 43703), (Start: 29 @43613 has 51 MA's), (73, 43358), (83, 43328), (88, 43325), (90, 43313), (92, 43307), (98, 43268), (100, 43262), (103, 43247), (120, 43115), (125, 43094),

Gene: Widow\_29 Start: 23301, Stop: 22723, Start Num: 24

Candidate Starts for Widow\_29:

(22, 23319), (Start: 24 @23301 has 5 MA's), (49, 23103), (73, 23004), (88, 22974), (100, 22911), (109, 22845), (110, 22839), (119, 22770), (120, 22767),

Gene: Windsor\_49 Start: 43483, Stop: 42863, Start Num: 23

Candidate Starts for Windsor\_49:

(Start: 23 @43483 has 316 MA's), (Start: 33 @43387 has 1 MA's), (50, 43285), (51, 43282), (52, 43276), (56, 43252), (59, 43243), (68, 43210), (74, 43183), (99, 43051), (100, 43048), (108, 42988),

Gene: Wooper\_46 Start: 38897, Stop: 38403, Start Num: 29

Candidate Starts for Wooper\_46:

(Start: 29 @38897 has 51 MA's), (42, 38798), (53, 38756), (61, 38717), (64, 38705), (71, 38684), (73, 38672), (83, 38636), (93, 38612), (98, 38576), (100, 38570), (108, 38507), (113, 38489),

Gene: Xavier\_49 Start: 43491, Stop: 42871, Start Num: 23

Candidate Starts for Xavier\_49:

(Start: 23 @43491 has 316 MA's), (Start: 33 @43395 has 1 MA's), (50, 43293), (51, 43290), (52, 43284), (56, 43260), (59, 43251), (68, 43218), (74, 43191), (99, 43059), (100, 43056), (108, 42996),

Gene: Xincheng\_44 Start: 43783, Stop: 43175, Start Num: 23

Candidate Starts for Xincheng\_44:

(Start: 23 @43783 has 316 MA's), (Start: 33 @43693 has 1 MA's), (50, 43588), (52, 43579), (56, 43555), (72, 43492), (91, 43405), (95, 43381), (98, 43360), (99, 43357), (111, 43282),

Gene: Yago84\_43 Start: 37494, Stop: 36997, Start Num: 29

Candidate Starts for Yago84\_43:

(Start: 29 @37494 has 51 MA's), (61, 37311), (64, 37299), (71, 37278), (73, 37266), (98, 37176), (100, 37170), (105, 37134), (107, 37113), (113, 37092),

Gene: Yahalom\_48 Start: 43226, Stop: 42681, Start Num: 25

Candidate Starts for Yahalom\_48:

(Start: 25 @43226 has 46 MA's), (45, 43076), (67, 42989), (71, 42974), (73, 42962), (83, 42932), (92, 42911), (98, 42872), (100, 42866), (101, 42857), (105, 42830),

Gene: Yeshua\_46 Start: 38874, Stop: 38380, Start Num: 29

Candidate Starts for Yeshua\_46:

(Start: 29 @38874 has 51 MA's), (42, 38775), (53, 38733), (61, 38694), (64, 38682), (71, 38661), (73, 38649), (83, 38613), (93, 38589), (98, 38553), (100, 38547), (108, 38484), (113, 38466),

Gene: Yinz\_48 Start: 43252, Stop: 42707, Start Num: 25

Candidate Starts for Yinz\_48:

(Start: 25 @43252 has 46 MA's), (40, 43123), (45, 43102), (67, 43015), (71, 43000), (73, 42988), (83, 42958), (92, 42937), (98, 42898), (100, 42892), (101, 42883), (105, 42856),

Gene: Yoshand\_51 Start: 43942, Stop: 43322, Start Num: 23

Candidate Starts for Yoshand\_51:

(Start: 23 @43942 has 316 MA's), (Start: 33 @43846 has 1 MA's), (50, 43744), (51, 43741), (52, 43735), (56, 43711), (59, 43702), (68, 43669), (74, 43642), (99, 43510), (100, 43507), (108, 43447),

Gene: YouGoGlencoco\_50 Start: 43781, Stop: 43161, Start Num: 23

Candidate Starts for YouGoGlencoco\_50:

(Start: 23 @43781 has 316 MA's), (Start: 33 @43685 has 1 MA's), (50, 43583), (51, 43580), (52, 43574), (56, 43550), (59, 43541), (68, 43508), (74, 43481), (99, 43349), (100, 43346), (108, 43286),

Gene: Zaider\_51 Start: 44011, Stop: 43391, Start Num: 23

Candidate Starts for Zaider\_51:

(Start: 23 @44011 has 316 MA's), (Start: 33 @43915 has 1 MA's), (50, 43813), (51, 43810), (52, 43804), (56, 43780), (59, 43771), (68, 43738), (74, 43711), (99, 43579), (100, 43576), (108, 43516),

Gene: Zelda\_50 Start: 43828, Stop: 43208, Start Num: 23

Candidate Starts for Zelda\_50:

(Start: 23 @43828 has 316 MA's), (Start: 33 @43732 has 1 MA's), (50, 43630), (51, 43627), (52, 43621), (56, 43597), (59, 43588), (68, 43555), (74, 43528), (99, 43396), (100, 43393), (108, 43333),

Gene: Zemanar\_46 Start: 44320, Stop: 43709, Start Num: 23

Candidate Starts for Zemanar\_46:

(Start: 23 @44320 has 316 MA's), (Start: 33 @44230 has 1 MA's), (52, 44116), (56, 44092), (60, 44080), (72, 44029), (91, 43942), (95, 43918), (98, 43897), (99, 43894), (111, 43819), (112, 43816),

Gene: Zenteno07\_54 Start: 43624, Stop: 43007, Start Num: 23

Candidate Starts for Zenteno07\_54:

(Start: 23 @43624 has 316 MA's), (43, 43423), (48, 43396), (51, 43384), (56, 43354), (95, 43216), (99, 43192), (108, 43129), (114, 43078),

Gene: Zonia\_50 Start: 43798, Stop: 43178, Start Num: 23

Candidate Starts for Zonia\_50:

(Start: 23 @43798 has 316 MA's), (Start: 33 @43702 has 1 MA's), (50, 43600), (51, 43597), (52, 43591), (56, 43567), (59, 43558), (68, 43525), (74, 43498), (82, 43456), (99, 43366), (100, 43363), (108, 43303),