


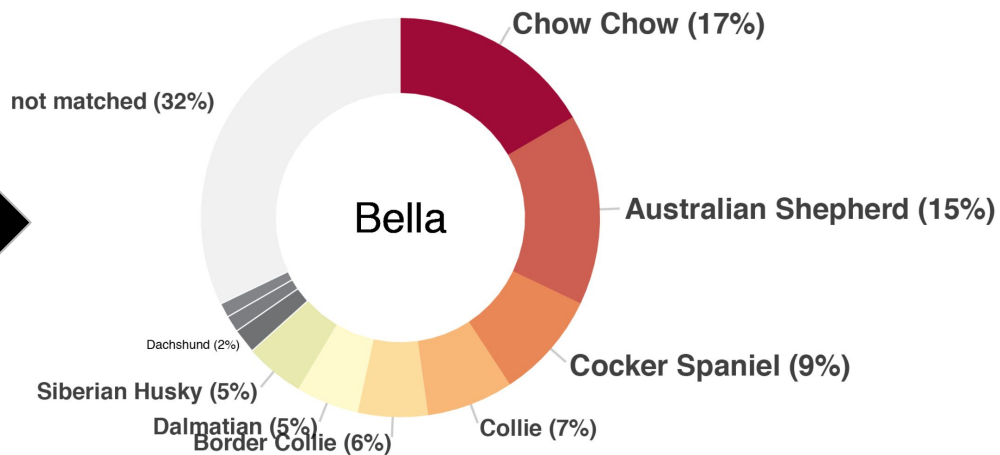
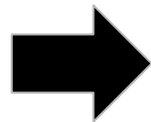


What's in a Mutt? An Intro to Dog DNA Analysis

Lecture 8
Jan 25th, 2019



From mutt saliva to dog breeds



How did we get there?

Test Accuracy



twins dna test kits news



Top stories



[Ancestry Tests Come Back Saying Identical Twins Have Wildly Different DNA](#)

IFLScience · 1 day ago

“ The Living DNA results found that Charlsie has DNA from Scotland and Ireland while Carly has a small percentage of ancestry from England.

The 23andMe results suggested Carly is almost 10 percent more "broadly European" than Charlsie. Meanwhile, Charlsie has 2.6 percent French and German ancestry, which Carly, apparently, does not. Charlsie also came back as 3.3 percent more Eastern European, 1 percent more Italian, and 1 percent more Balkan than her sister. Hey, at least, they can agree that the twins are largely of European descent. ”

Test Accuracy

2009: Wisdom Panel

German Shepherd Dog
Basenji
Chow Chow
Border Collie

2016: DNA My Dog

Level 3 (20%–36%): Collie, Nova Scotia Duck Tolling Retriever
Level 4 (10%–20%): English Setter, Norwegian Elkhound

2016: Wisdom Panel

12.5% American Staffordshire Terrier
12.5% Australian Cattle Dog
12.5% Border Collie
12.5% Chow Chow
12.5% German Shepherd Dog
37.5% (mixed)



2018: Embark

21.3% American Pit Bull Terrier
14.1% Australian Cattle Dog
13.2% German Shepherd Dog
12.3% Chow Chow
10.3% Labrador Retriever
8.0% Border Collie
4.3% Rottweiler
16.5% ("Supermutt")

Report: A DNA Testing Company Could Not Tell the Difference Between Human and Dog DNA



Kristen V. Brown

5/02/18 1:30pm • Filed to: DNA TESTING ▾



62.9K

50

4



Not a human, just FYI.

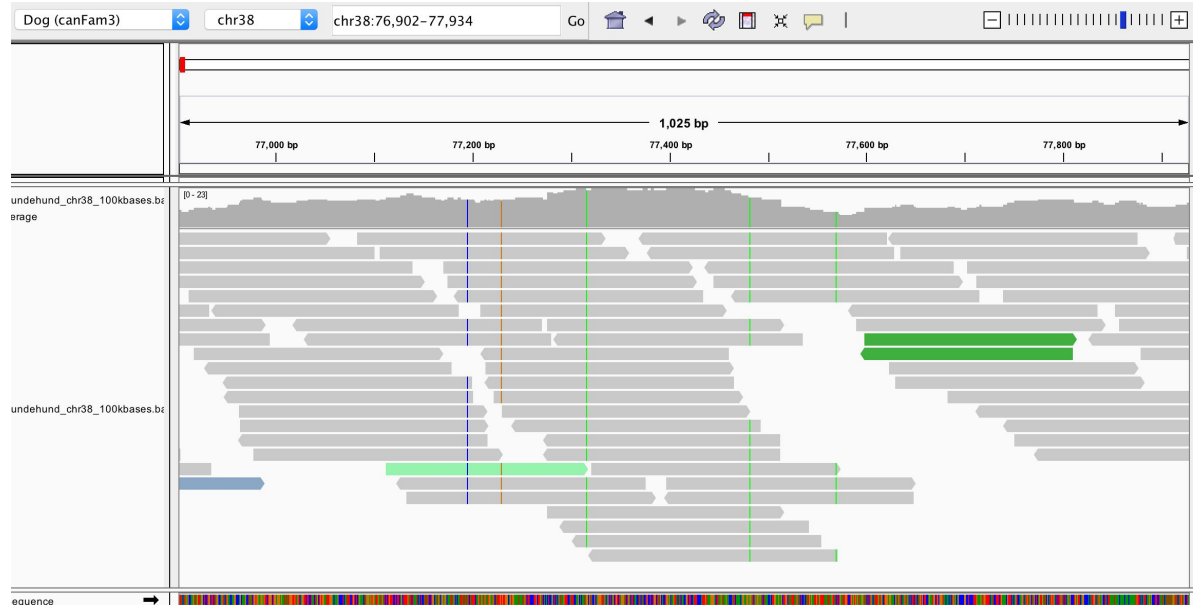
Photo: [David Locke](#) (Flickr)

Dog may be man's best friend, and even [genetically similar to humans](#), to boot, but there are enough key differences that it shouldn't be too hard to distinguish between human and doggie DNA.

And yet, an investigation into home DNA testing kits by [NBC Chicago](#) found that at least one DNA testing company could not distinguish between the two.

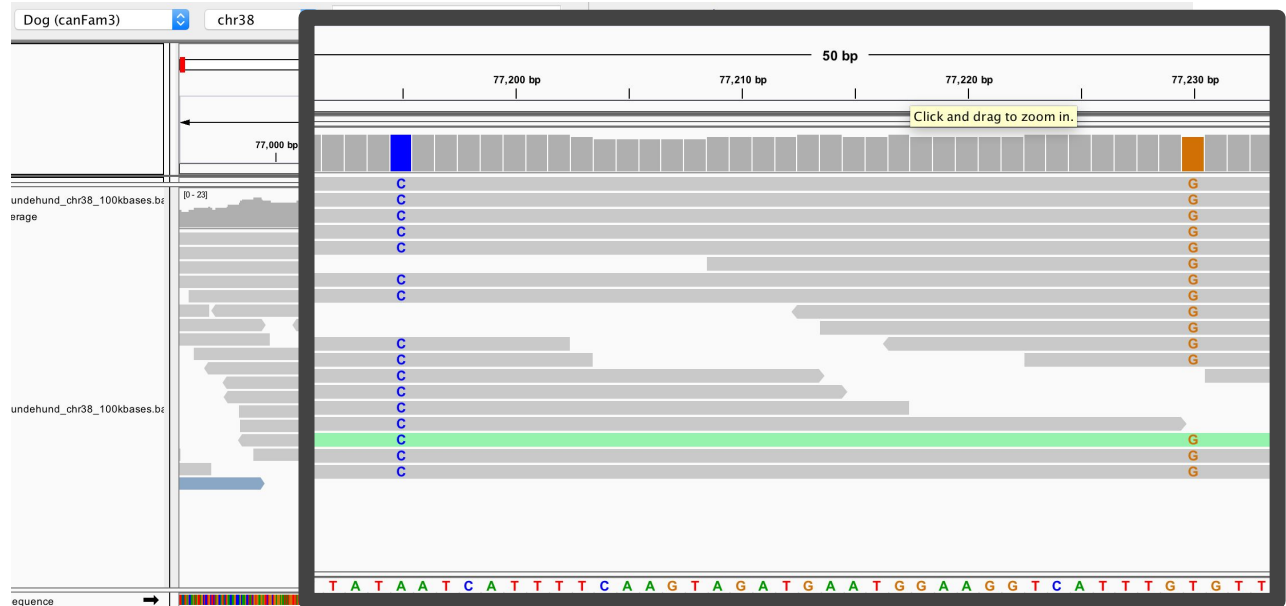
Mini Assignment: Using IGV (Integrative Genomics Viewer)

IGV is a tool that lets you visualize alignments from second or third generation sequencing to a reference genome



Mini Assignment: Using IGV (Integrative Genomics Viewer)

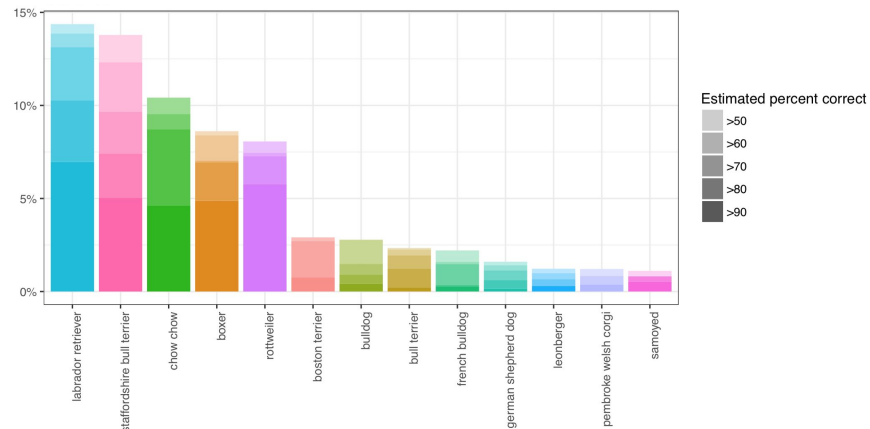
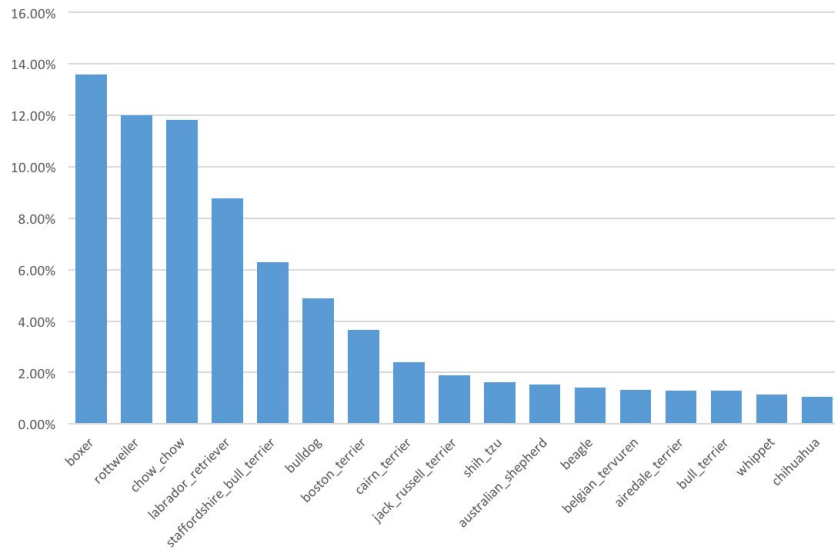
IGV is a tool that lets you visualize alignments from second or third generation sequencing to a reference genome



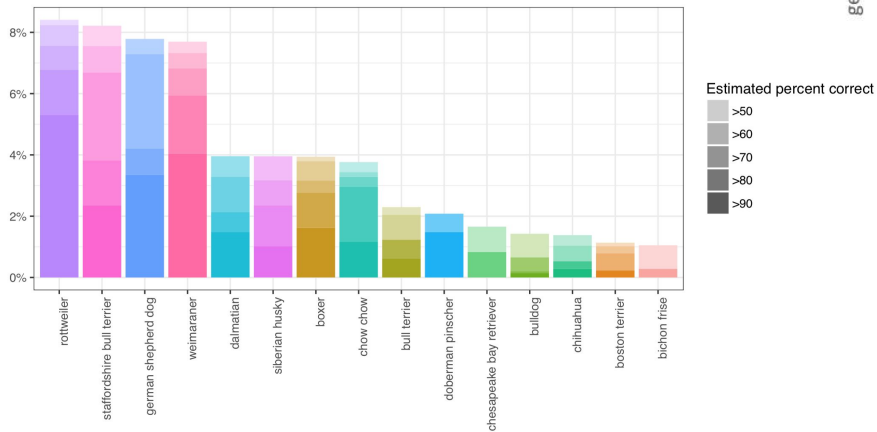
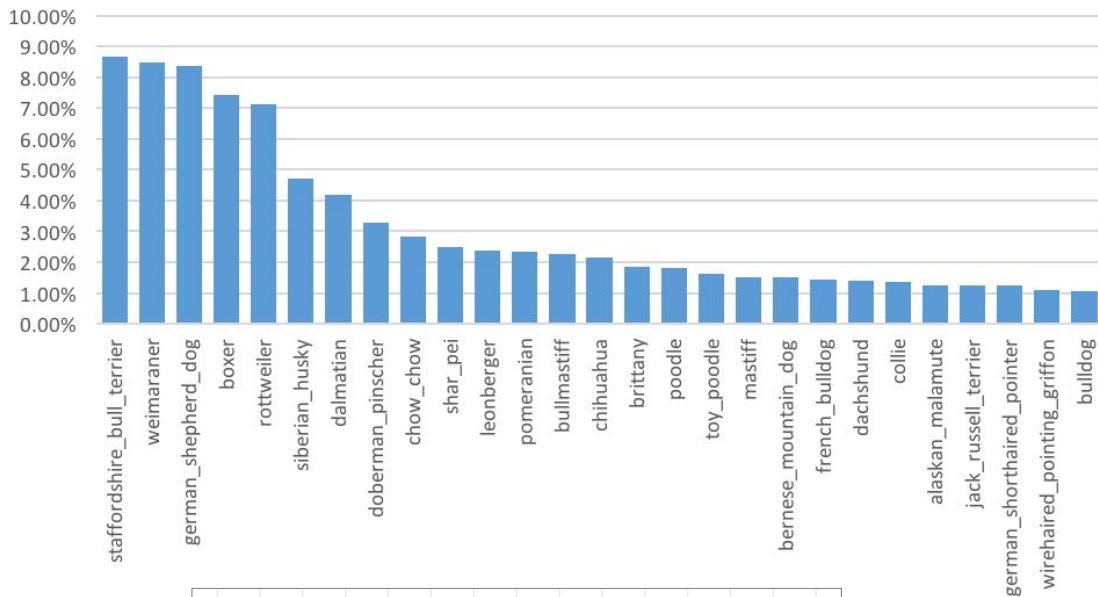
Clarence



Even using the same data, different parameters yield slightly different results!



Reilly



Finch

