

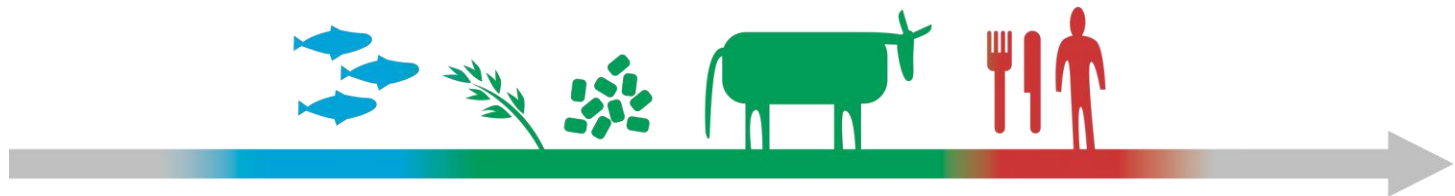


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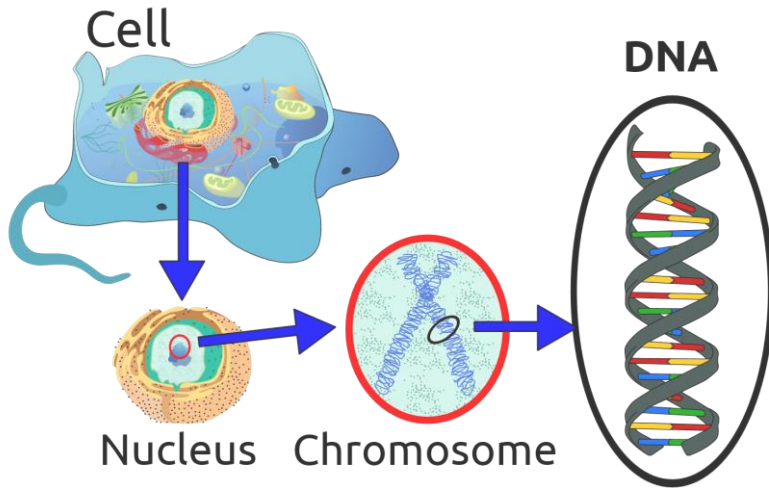
# Slektskapsanalyser

Alejandra Villamil Alonso

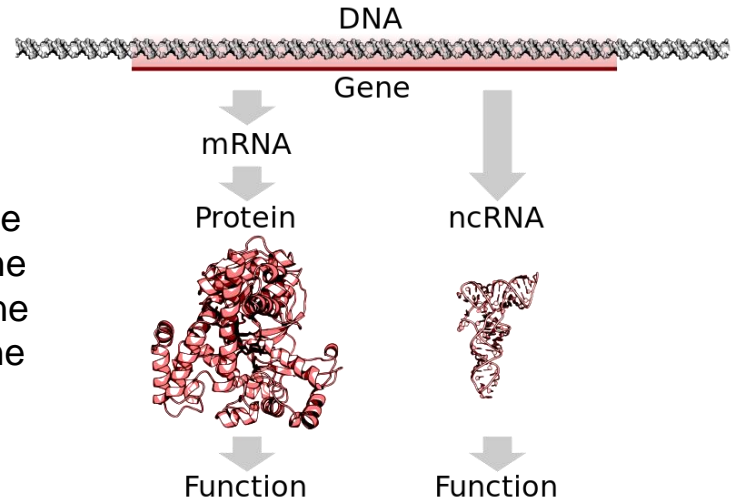
Karin Lagesen



# Hva ser vi på?



**A**dentine  
**T**hymine  
**C**ytosine  
**G**uanine



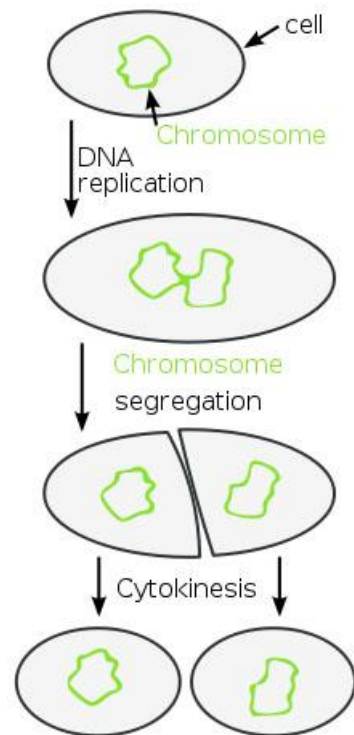
**A**T**G****C****C****T****G****A****G****T****G****G**  
 DNA



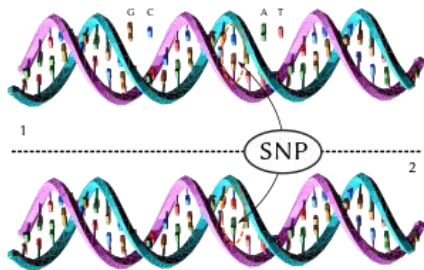
**M****P****E****W**  
 Protein

# Slektskap

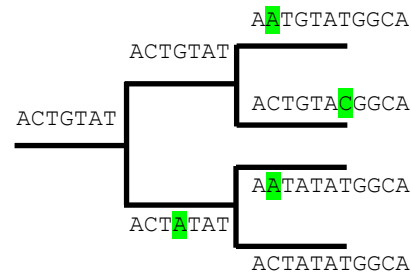
- Teori: samme opphav betyr "likere" bakterier enn ellers
- Mulige resultater
  - Smittesporing
  - Reservoar/kilde
- Metode - Fylogeni
  - evolusjonær rekonstruksjon



# Fylogenetiske metoder



Wikimedia commons  
SNP model by David Eccles (gringer)



Fylogenetisk analyse

```

IS1  AATGTATGGCA
IS2  ACTGTAGGCA
IS3  AATAATATGGCA
IS4  ACTAATATGGCA
      * * * * *
    
```

Multipel sekvenssammenstilling viser mutasjoner, ofte også kalt SNPs  
Single Nucleotide Polymorphism

# Hva er et slektskapstre?

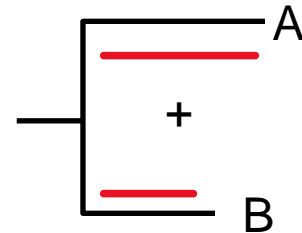
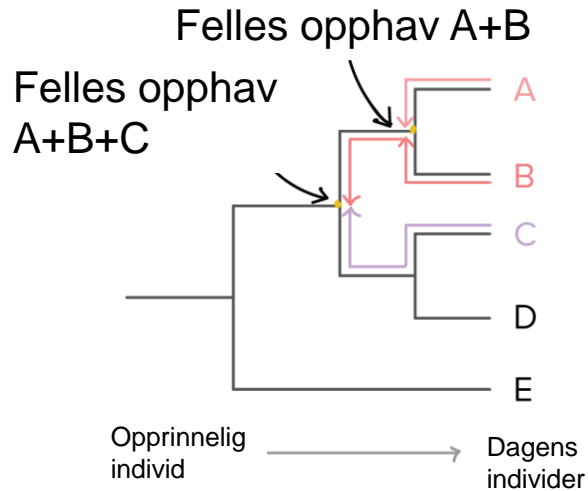


Image modified from [Taxonomy and phylogeny: Figure 2](#)  
by Robert Bear et al., [CC BY 4.0](#)

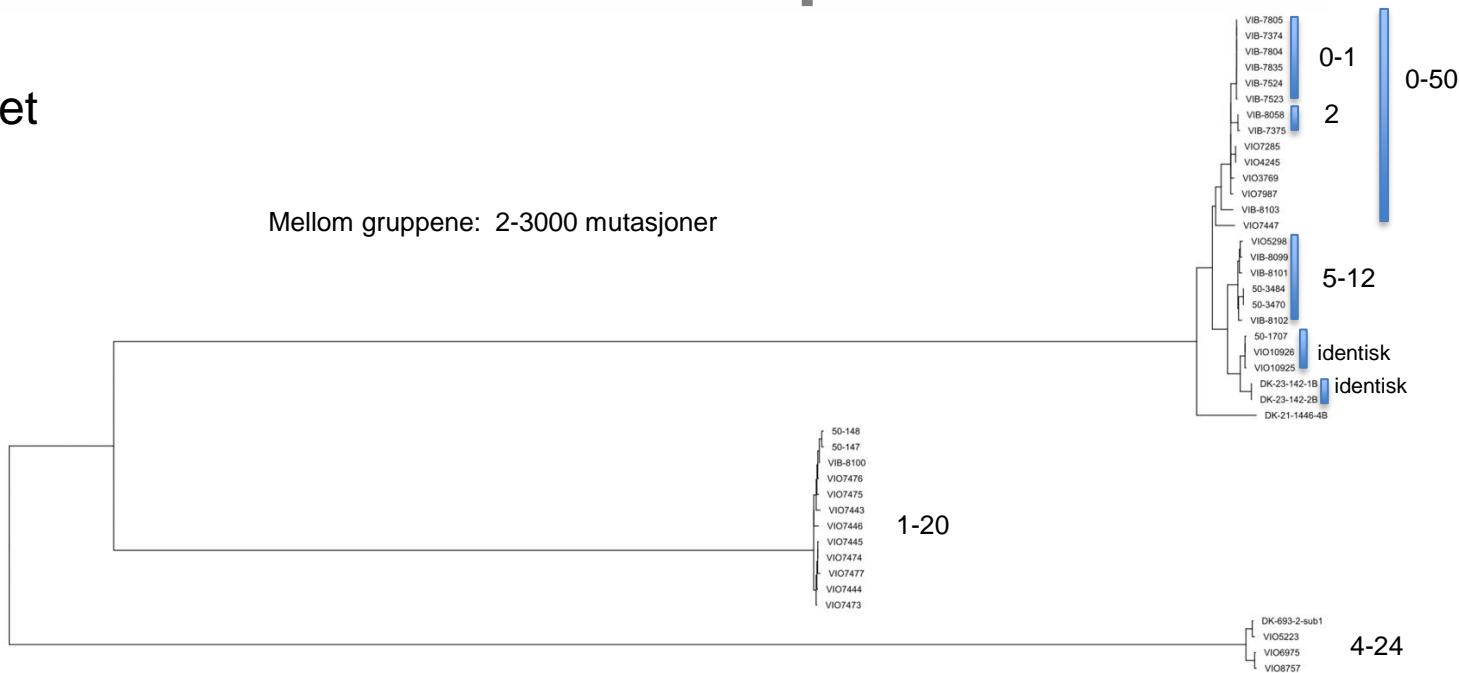
# Prøvemateriale - 42 isolater

- Art
  - Laks: 34
  - Ørret: 8
- Land:
  - Norge: 38
  - Danmark: 4
- År:
  - 80-tallet: 10
  - 90-tallet: 4
  - 00-tallet: 7
  - 10-tallet: 9
  - 20-tallet: 11

# Slektskap

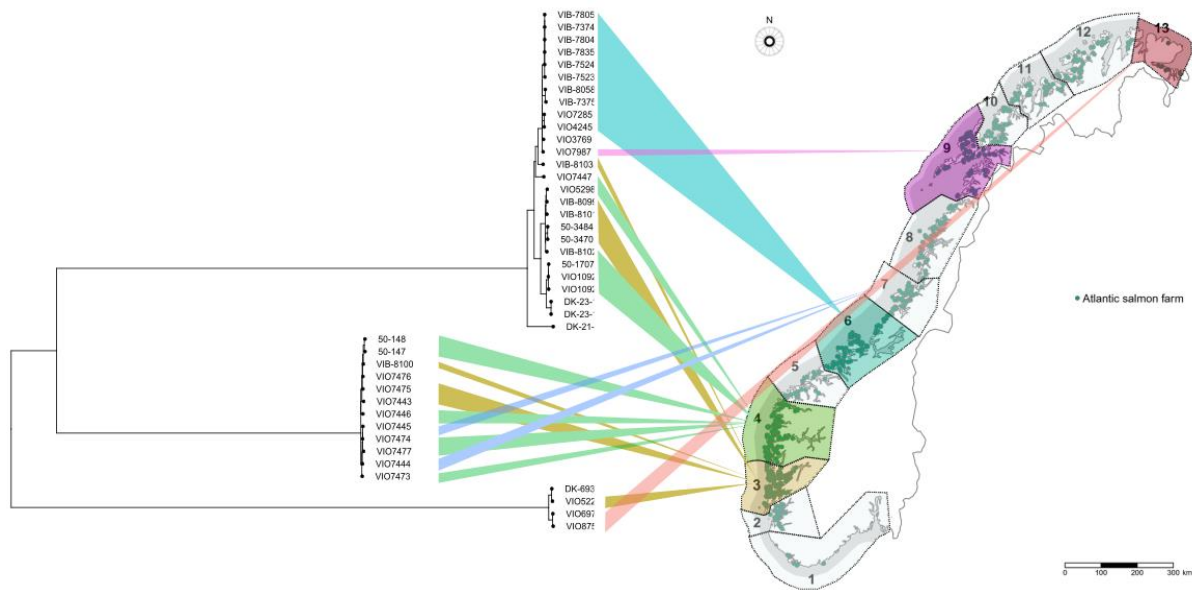
>96% likhet

Mellom gruppene: 2-3000 mutasjoner



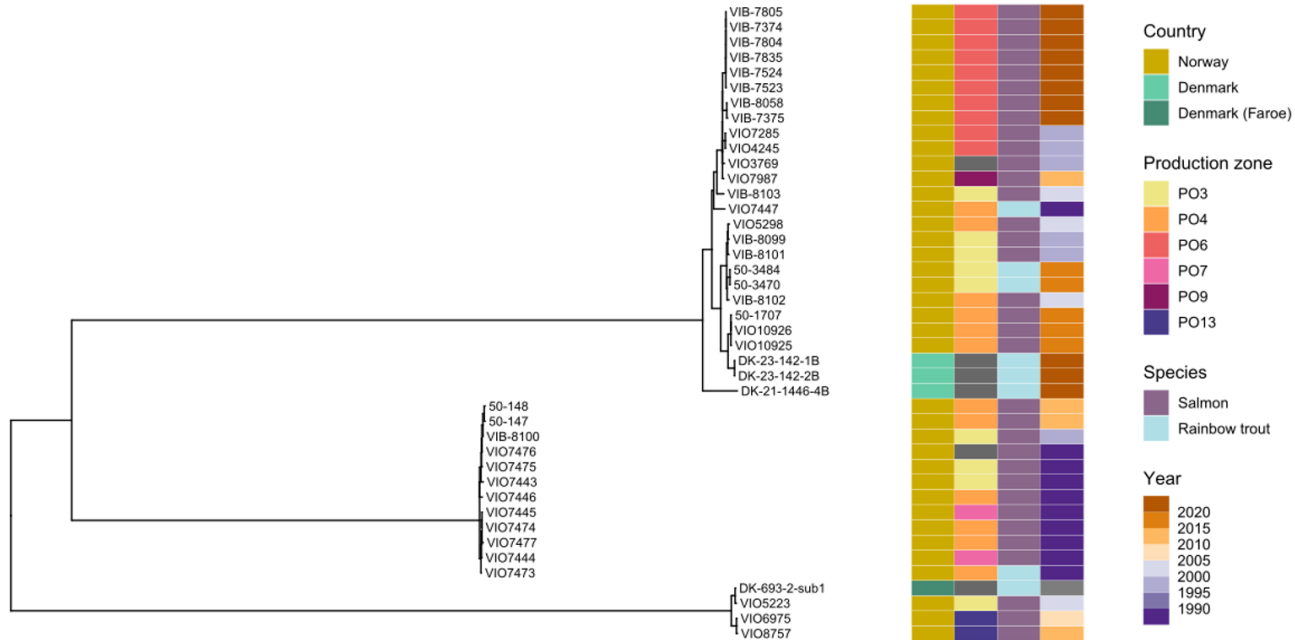


# Geografi





# Sammendrag



*Faglig ambisiøs, fremtidsrettet og  
samspillende - for Én helse!*



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[www.vetinst.no](http://www.vetinst.no)