

# Folgen konsequenten Ausmerzens: PRA-Mutation Schapendoes

- ▶ Mutation-Frequenz ↓
- ▶ paradox: genet. Vielfalt ~~↓~~ **sondern** ↑ - warum ?
- ▶ andere Zuchtstrategie: alte Linien

wieder genutzt (Inzucht-Koeffizient 30→20)



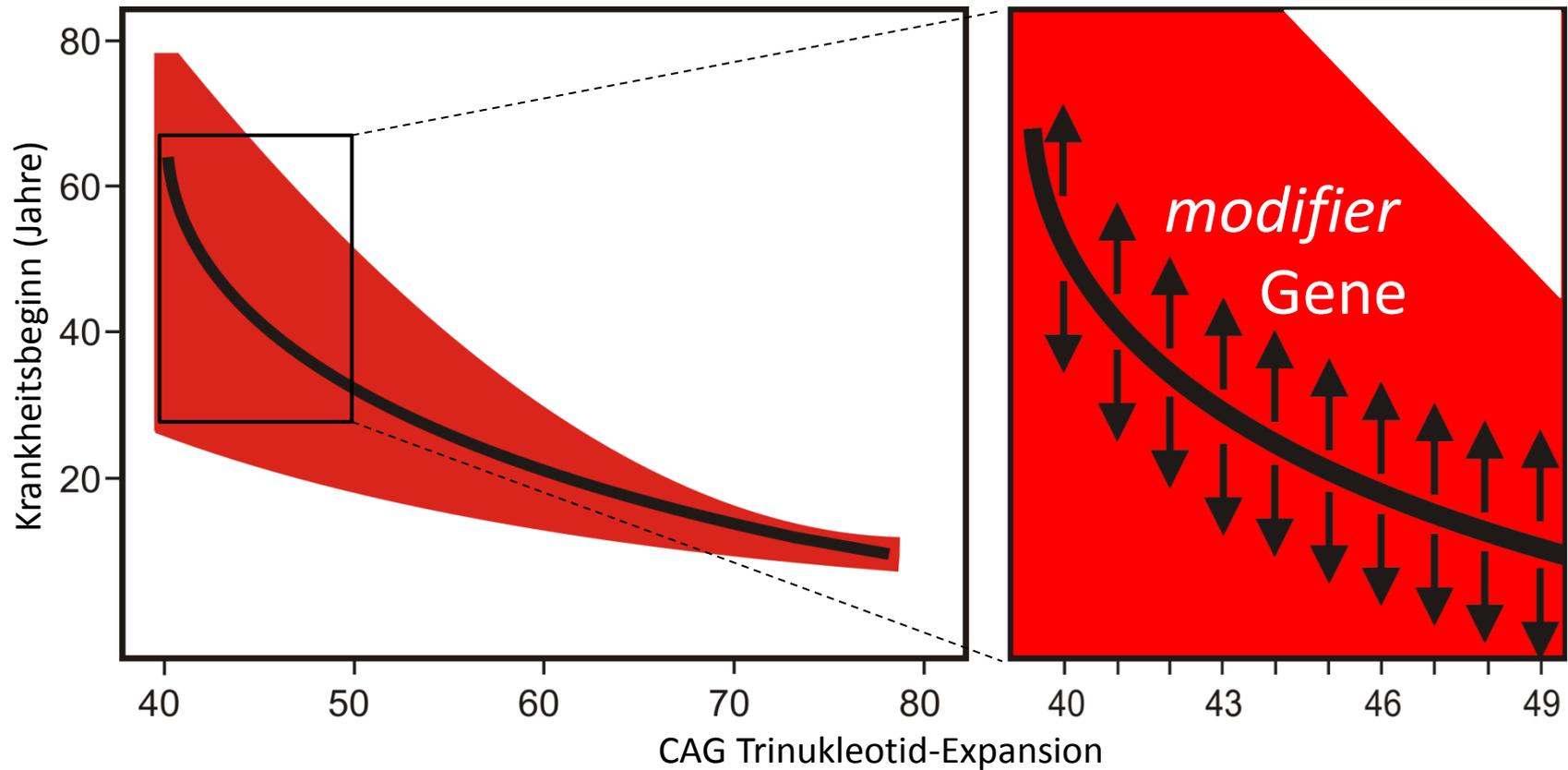
weise Zucht-Politik

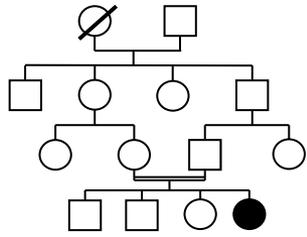
# DNA-Profile, DNA-Biobanken und Epigenetik

- 🐾 DNA-Profile
- 🐾 DNA-Biobanken
- 🐾 Epigenetik
- 🐾 Schlussfolgerungen

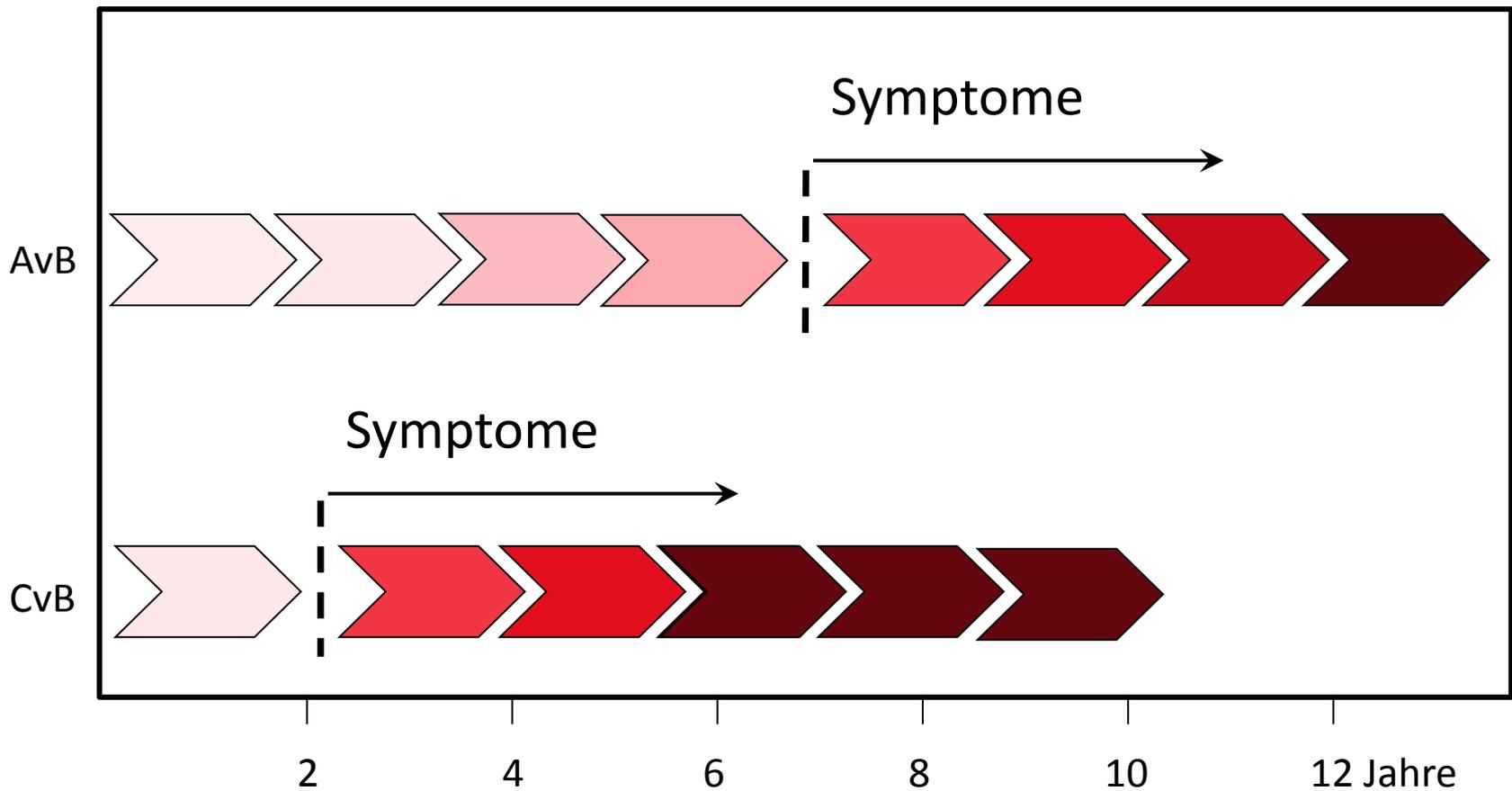


# Huntington-Krankheit

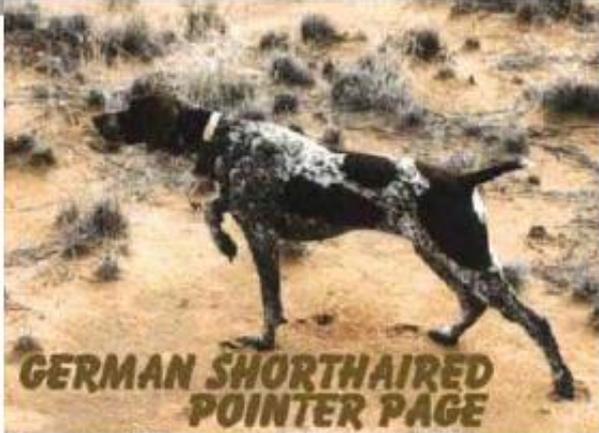




# (Nacht-)Blindheit



# Epigenetik



GERMAN SHORTHAIRED POINTER PAGE

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Forums > Mailing Lists > working-gundog

**Subject: Re: [working-gundog] epigenetics and the origins of pointing**

07/04/2007 7:59 AM

Private Message Count 

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I think we have both argued in the past that the natural point and the trained stand are distinct behaviors. Could the distinction be the result of fundamental differences between brain development processes guided by **epigenetic molecules** working in concert with the genetic foundation and the environment and brain development learning under environmental influence?

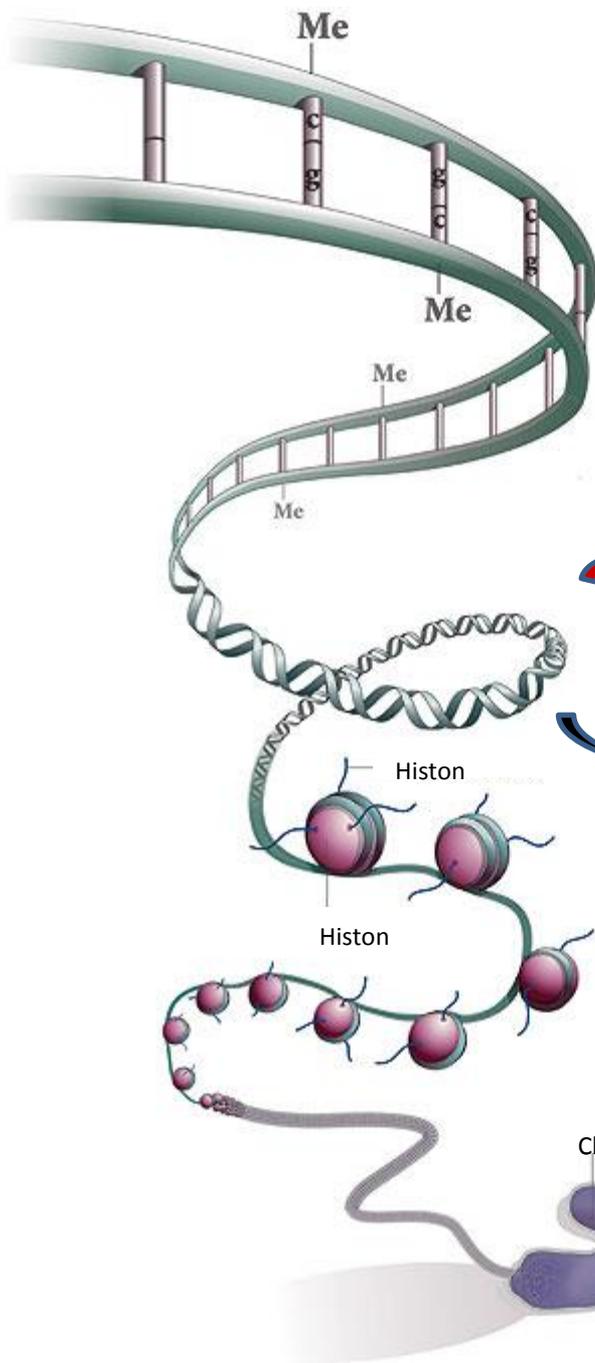


# Epigenetik: *imprinting* ↔ Prägung

*Optimal geprägte Welpen begegnen dem Menschen voller Neugier und Vertrauen.*

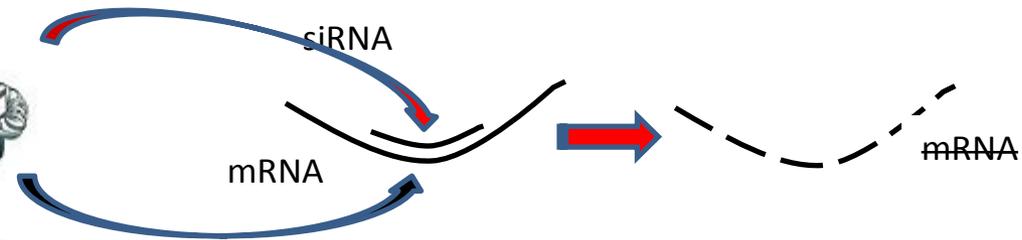
Prägung ist in der Verhaltensbiologie eine irreversible Form des Lernens.





DNA-Methylierung

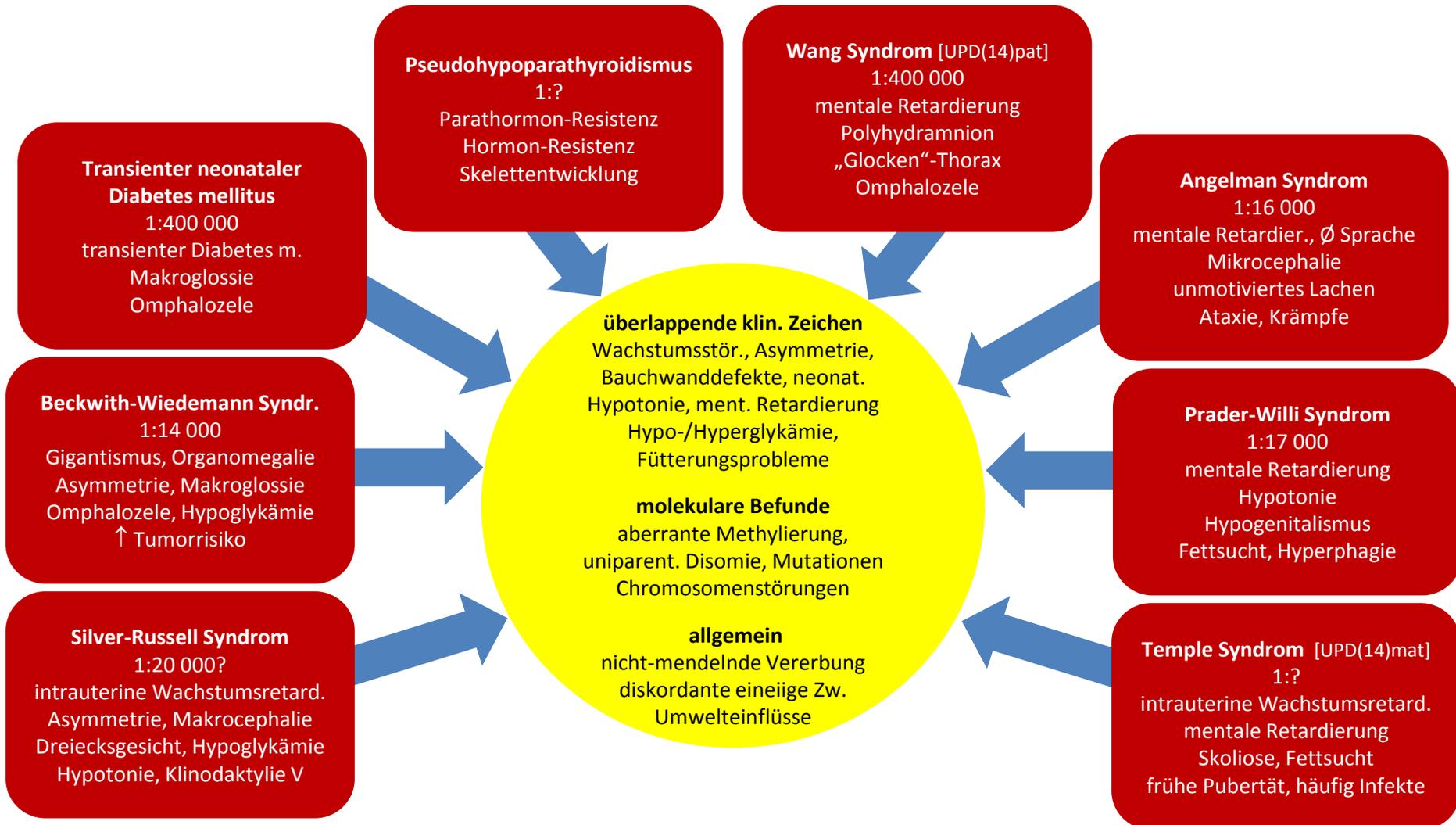
Epigenetik:



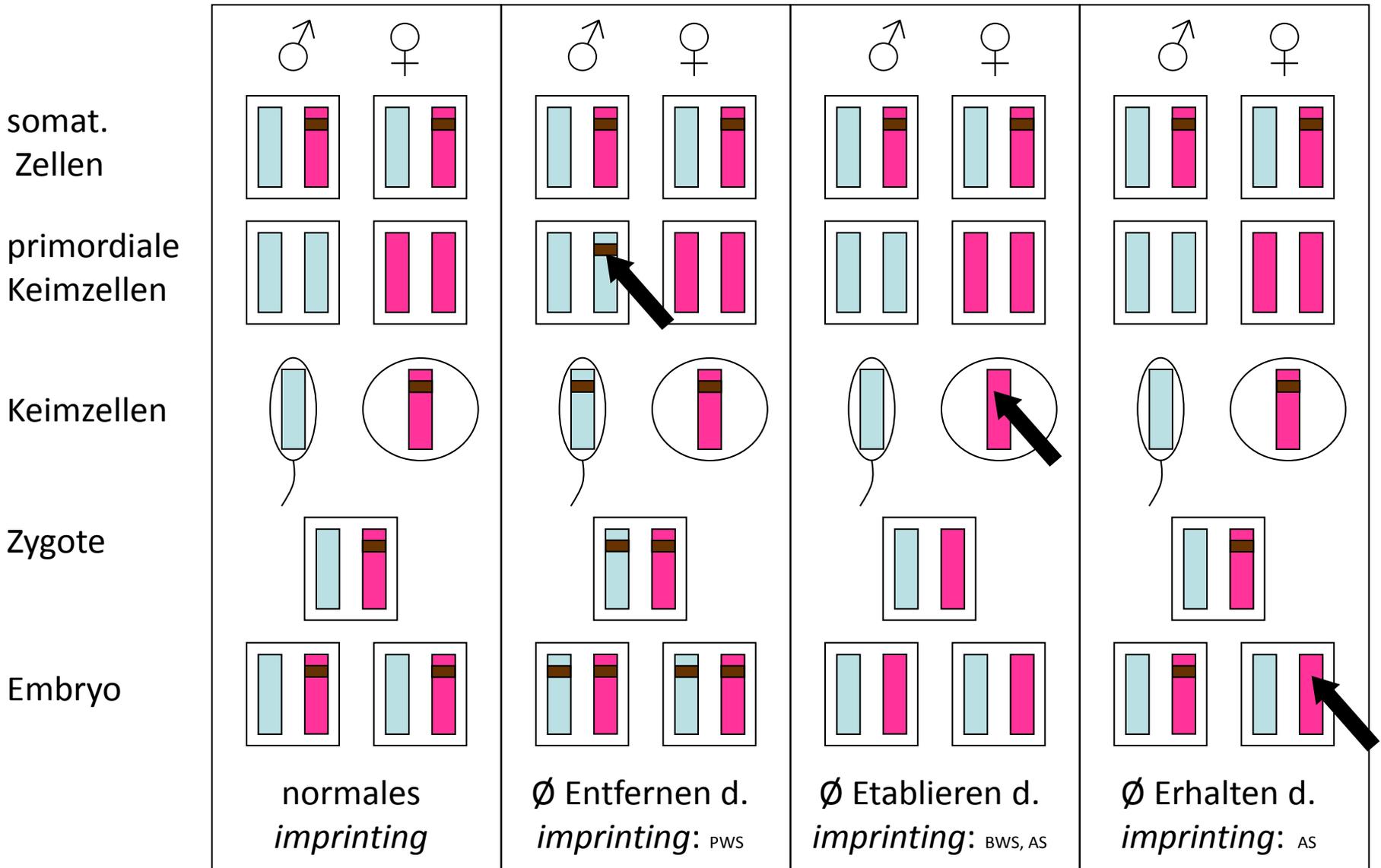
Histon-  
Modifikation

Mechanismen

# humane *imprinting* - Erkrankungen

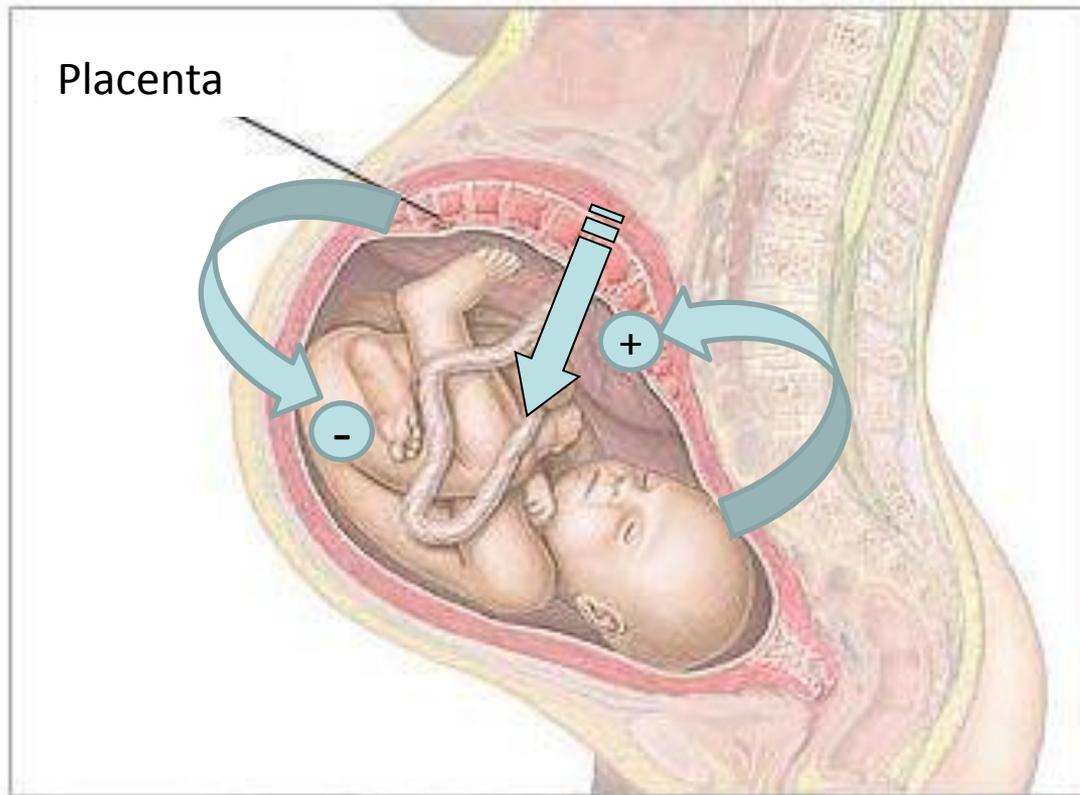


# geprägte Gene (*imprinting*)

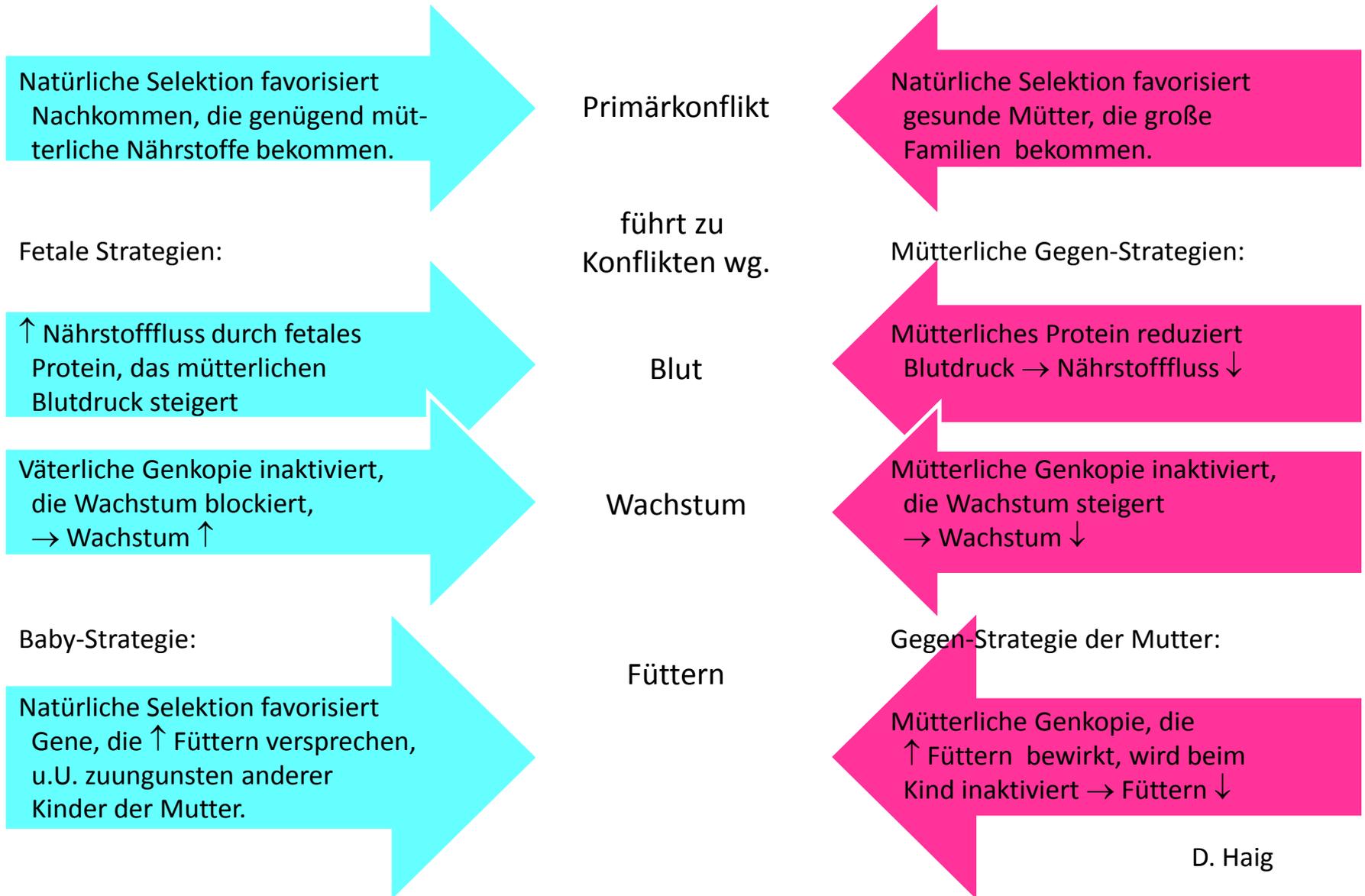


# Mutter ↔ Fet (*kinship theory*)

Effekte geprägter Gene auf  
Ressourcen-Bereitstellung



# evolutionäre Konflikte: Schwangerschaft



# geprägte Gene (*imprinting*)

doi:10.1111/j.1558-5646.2010.01115.x

## A MODEL FOR GENOMIC IMPRINTING IN THE SOCIAL BRAIN: ADULTS

Francisco Úbeda<sup>1,2</sup> and Andy Gardner<sup>3</sup>

<sup>1</sup>*Department of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, Tennessee 37996*

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Mensch: < 100 geprägte Gene

**Sex-Specific Parent-of-Origin Allelic expression in the Mouse  
Brain**

Published as: *Science*. 2010 August 6; 329(5992): 682–685.

Christopher Gregg<sup>1,2</sup>, Jiangwen Zhang<sup>3</sup>, James E. Butler<sup>1,2</sup>, David Haig<sup>4</sup>, and Catherine Dulac<sup>1,2,\*</sup>

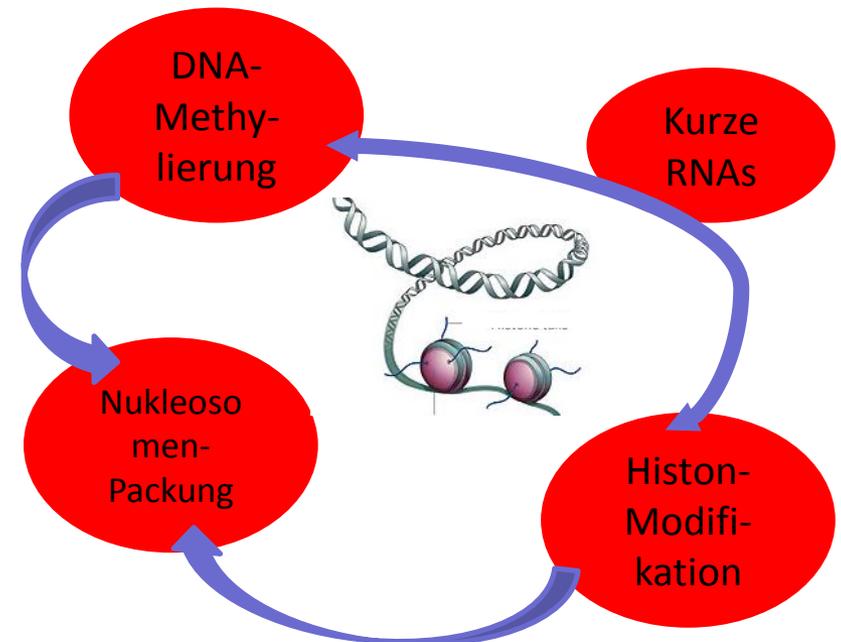
**Maus-Gehirn:  
~1500**

# Epigenetik: geprägte Gene, *Überprogramm* ?

*old dogs - new tricks*

Schlussfolgerungen

- theoretisch relevant
- “maternaler  
Großvater-Effekt”
- Forschung !



# Schlussfolgerungen



heutige Rassen sind extrem wertvoll



DNA-Tests bedächtig + sparsam einsetzen keine Test-Batterien



genetische Vielfalt bewahren Zuchtpopulation testen



DNA-Biobank einrichten und pflegen Abstammungstest redundant