



# Taula rodona: Miocardiopatias familiars i genètica

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*PONENTS:*

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*Quan demanar i com interpretar un estudi genètic*

*Dra. Esther Zorio (Hospital la Fe, Valencia)*

*Enfocament multidisciplinar de la mort sobtada*

*CAS CLÍNIC*

*Dra. Beatriz Toledano (Hospital Germans Trias i Pujol)*





Els avenços en **genètica, genòmica i proteòmica** estan permetent millorar el diagnòstic i coneixement de les malalties, la identificació del risc d'emmallaltir, el desenvolupament de nous tractaments i, en general, una **millora de la salut**.

L'ús de **provees genètiques** i el diagnòstic molecular s'està expandint rapidament en la pràctica clínica amb la creació d'un nou enfocament de la medicina, la **medicina personalitzada o de precisió**.

Una forma de medicina que **fa servir la informació** sobre els gens d'una persona, les seves proteïnes i el medi ambient per **prevenir, diagnosticar i tractar** la malaltia.

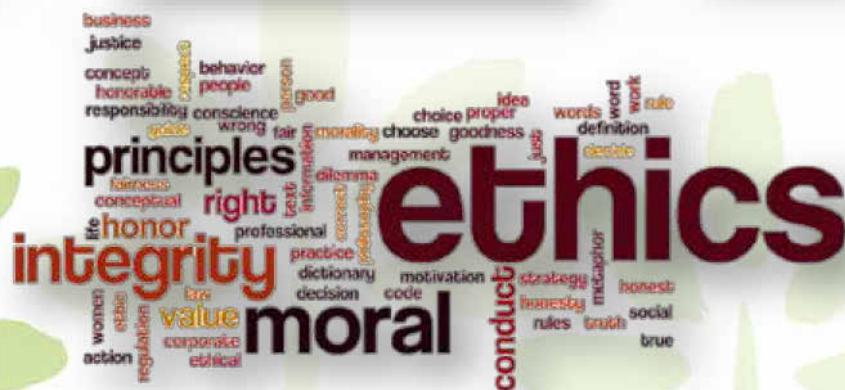


<http://www.hollywoodreporter.com/news/angelina-jolie-featured-time-cover-523>

<http://www.genenews.com/gen-articles/turning-data-into-genomic-medicine/3486/>



No obstant això, els avenços en genètica, genòmica i proteòmica també plantegen **importants desafiaments**.

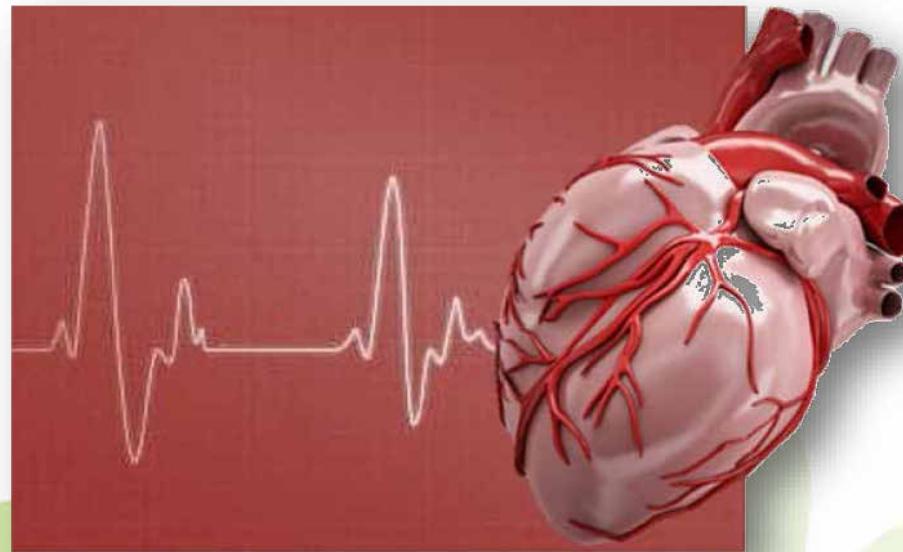




# Malalties cardiovasculars

*... Malalties complexes*

*i multifactorials*

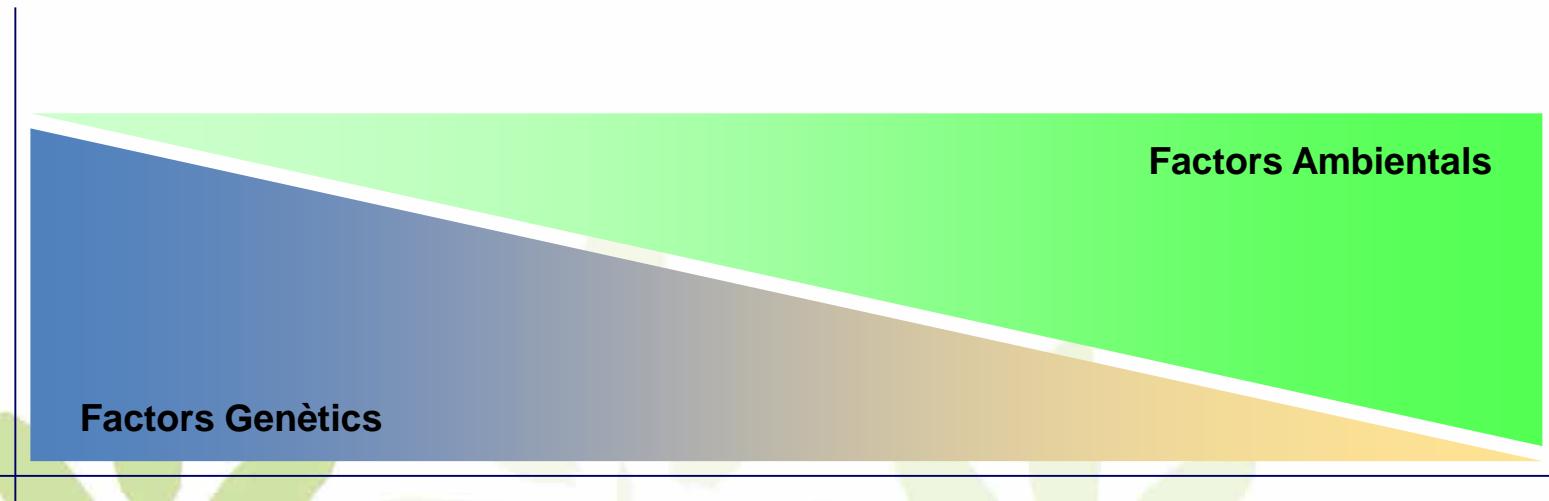




# Malalties cardiovasculars

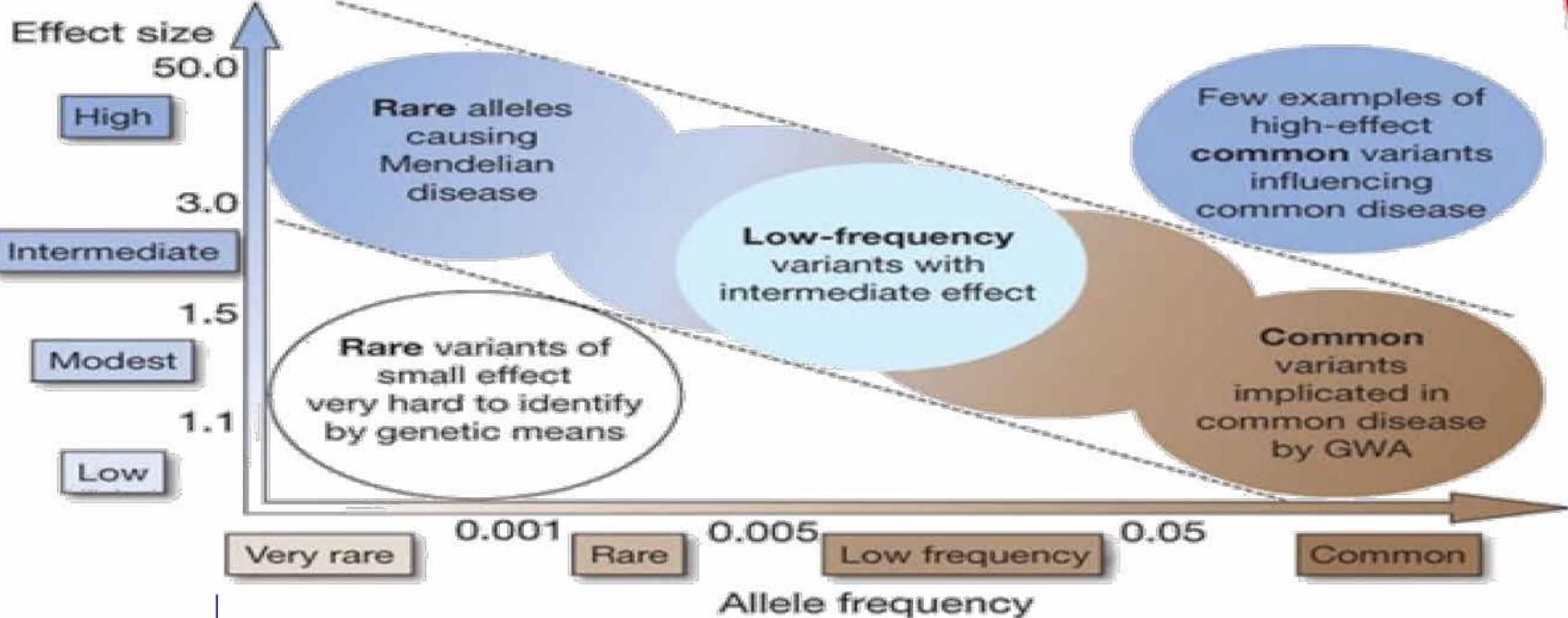
*... Malalties complexes*

*i multifactorials*





## Malalties monogèniques

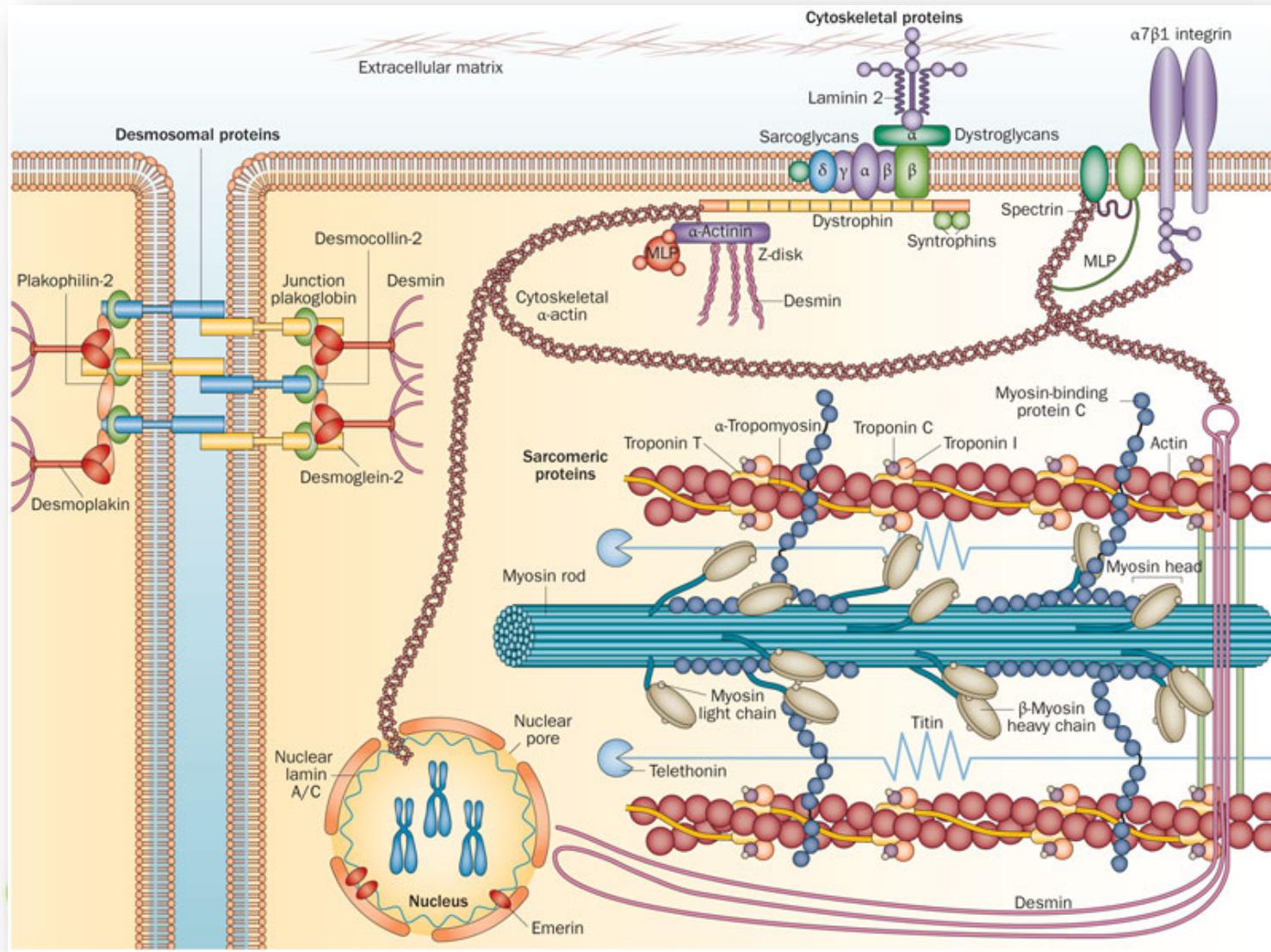


Factors Ambientals

Factors Genètics

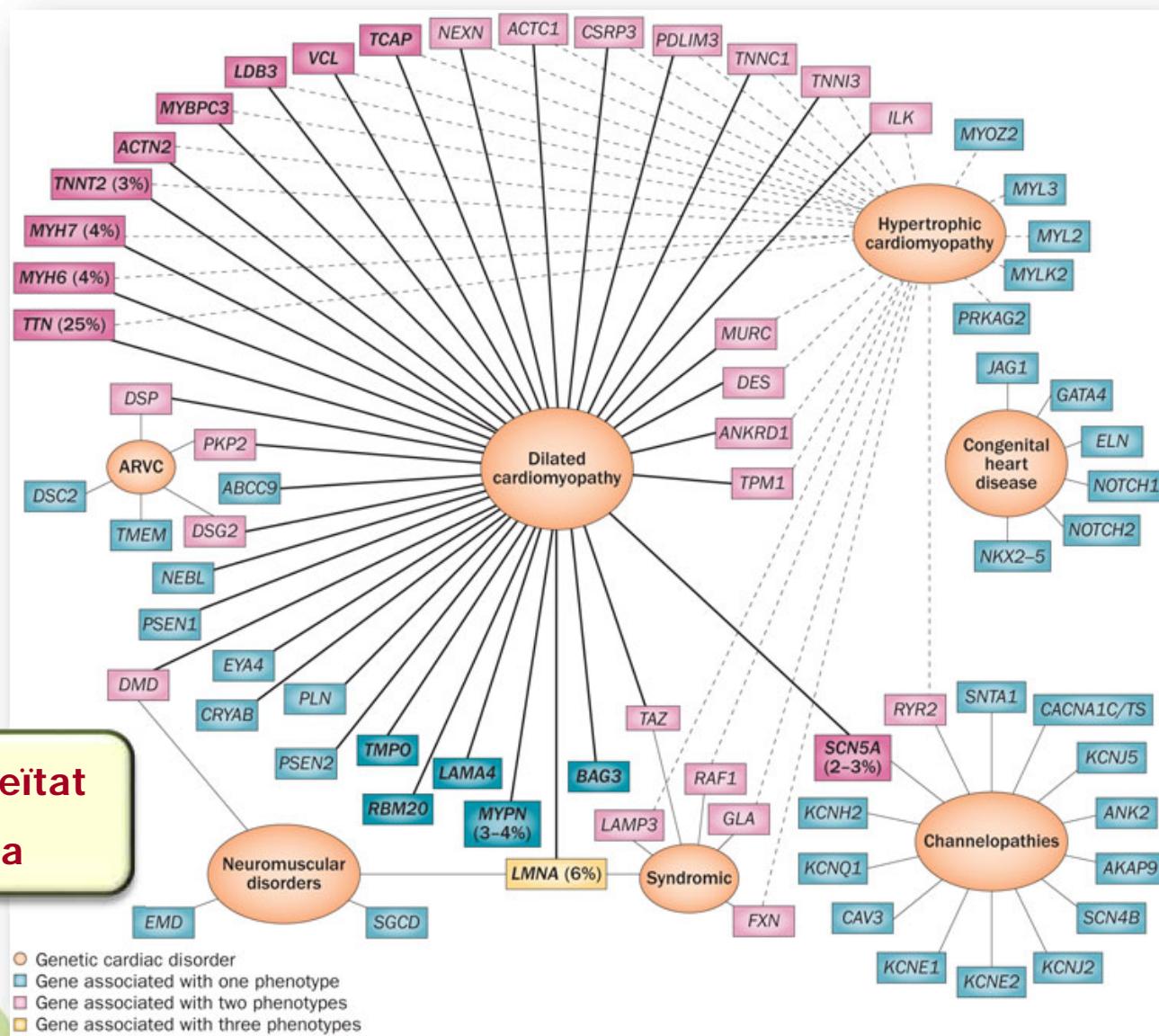
Patró herència mendeliana

# Genètica i Cardiomopaties



<http://www.nature.com/nccardio/journal/v10/n10/images/nccardio.2013.108-f4.jpg>

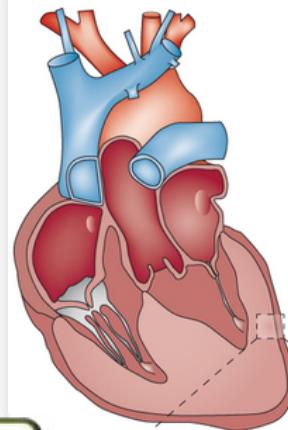
# Genètica i Cardiopaties



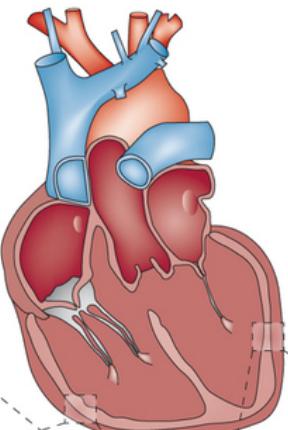
# Genètica i Cardiopaties



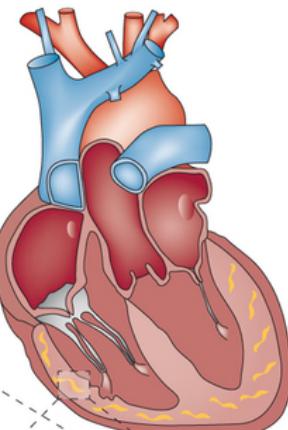
HCM ★



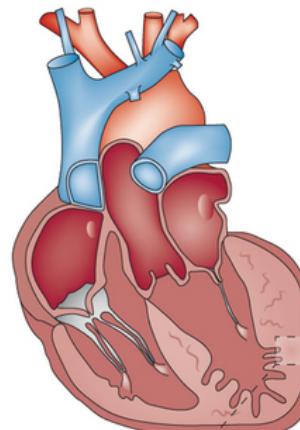
DCM ★



ARVC ★

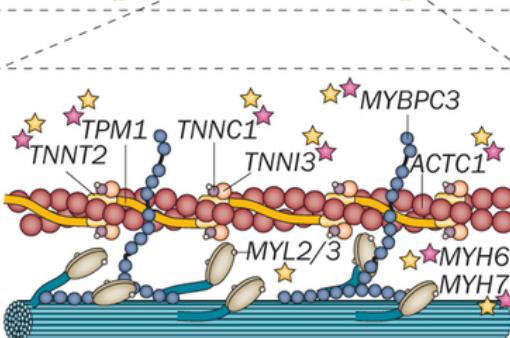
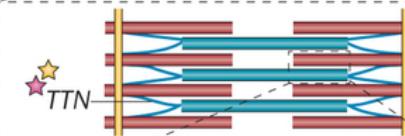


LV noncompaction  
cardiomyopathy ★

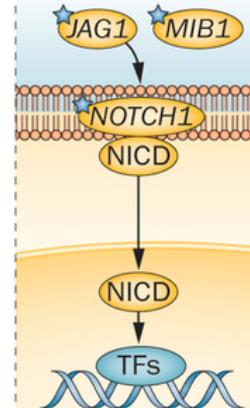
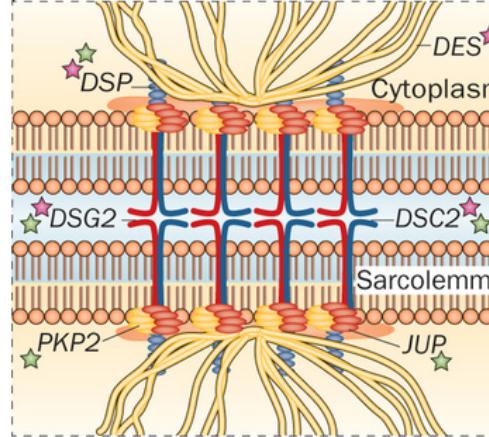


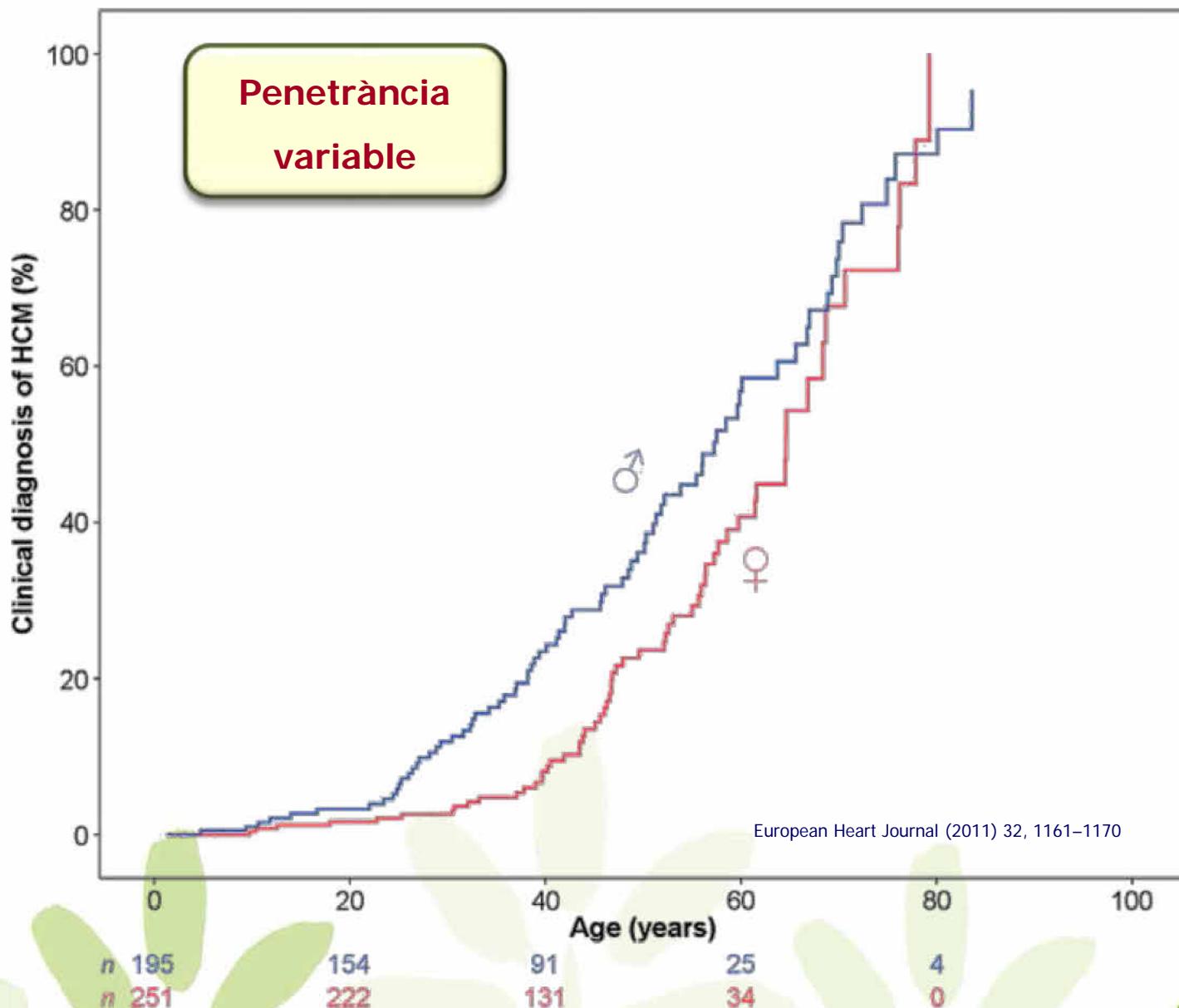
## Pleiotropia

### Sarcomere

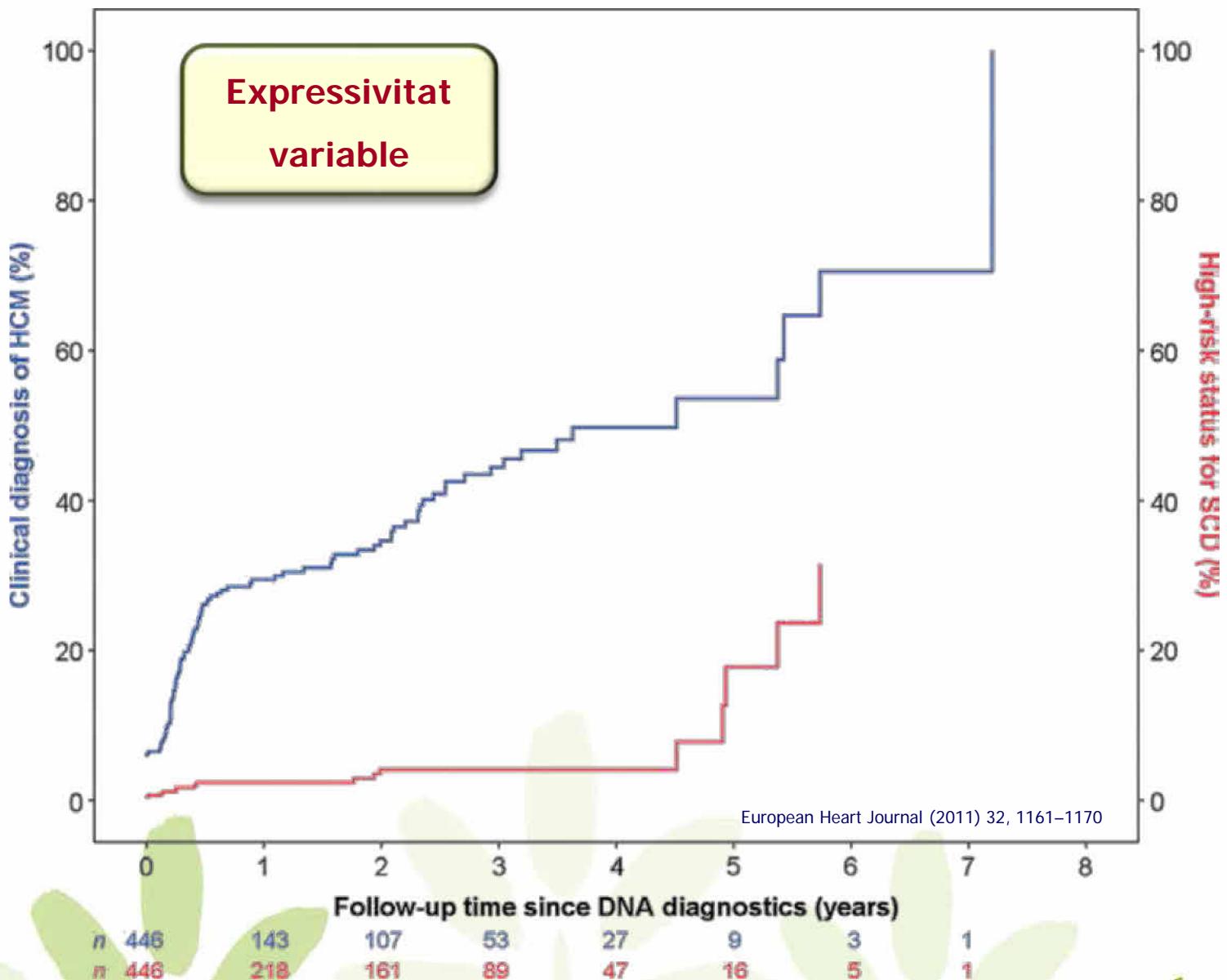


### Desmosome





Clinical diagnosis of hypertrophic cardiomyopathy  
during life in male (♂) and female (♀) mutation carriers.

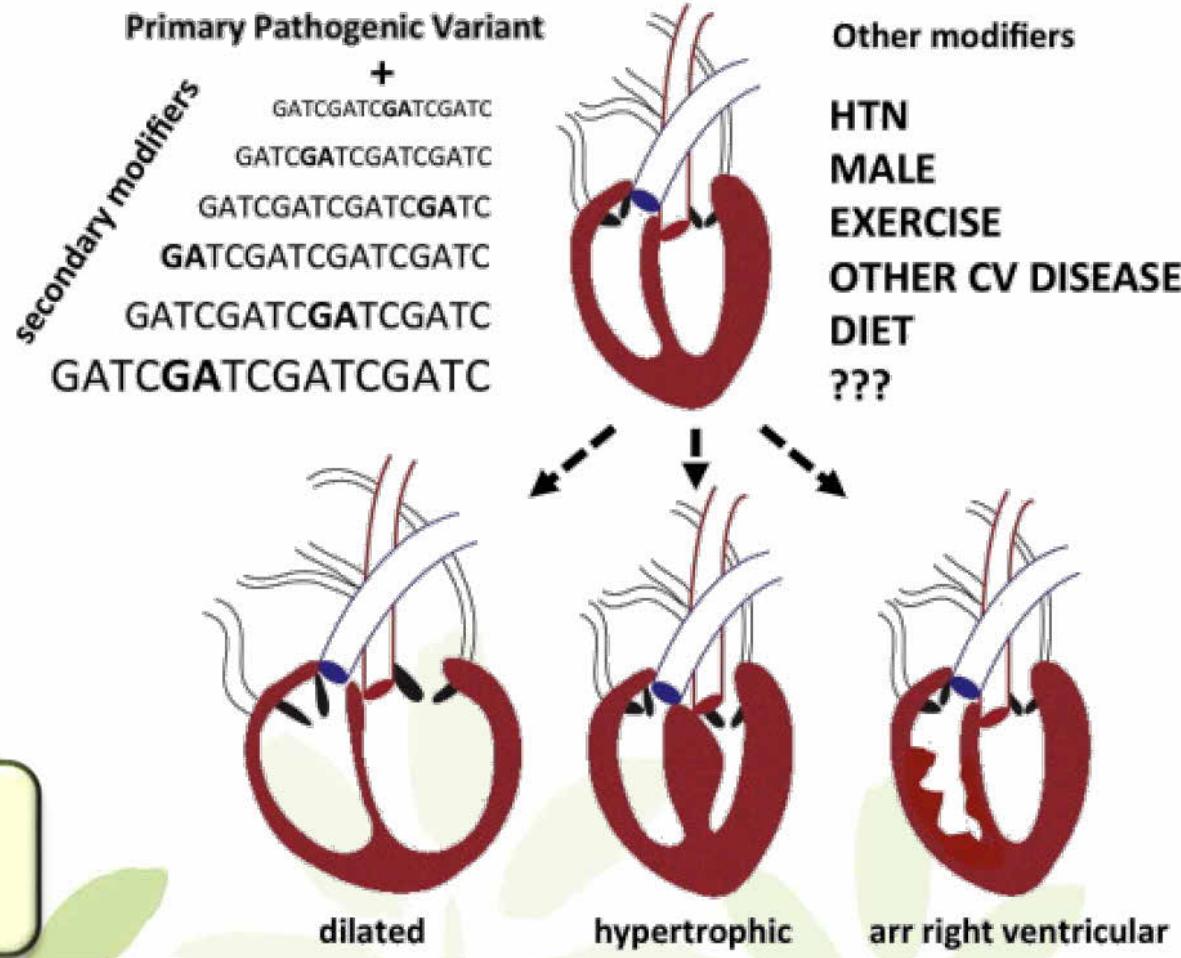


Clinical diagnosis of hypertrophic cardiomyopathy and high-risk status for sudden cardiac death (manifest hypertrophic cardiomyopathy and  $\geq 2$  risk factors) during follow-up.



Penetrància  
variable

## Factors Modificadors





*Personalized Medicine* (2014) 11(7), 631–640

Research Article

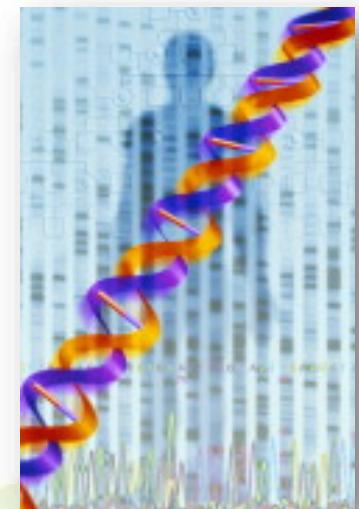
Special Focus Issue: Genomic Medicine in 2014

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## Personalized Medicine



### Psychological stress associated with cardiogenetic conditions





“... toda prueba genética  
debe ir acompañada del  
oportuno asesoramiento,  
tanto antes como  
después de los  
procedimientos ...”



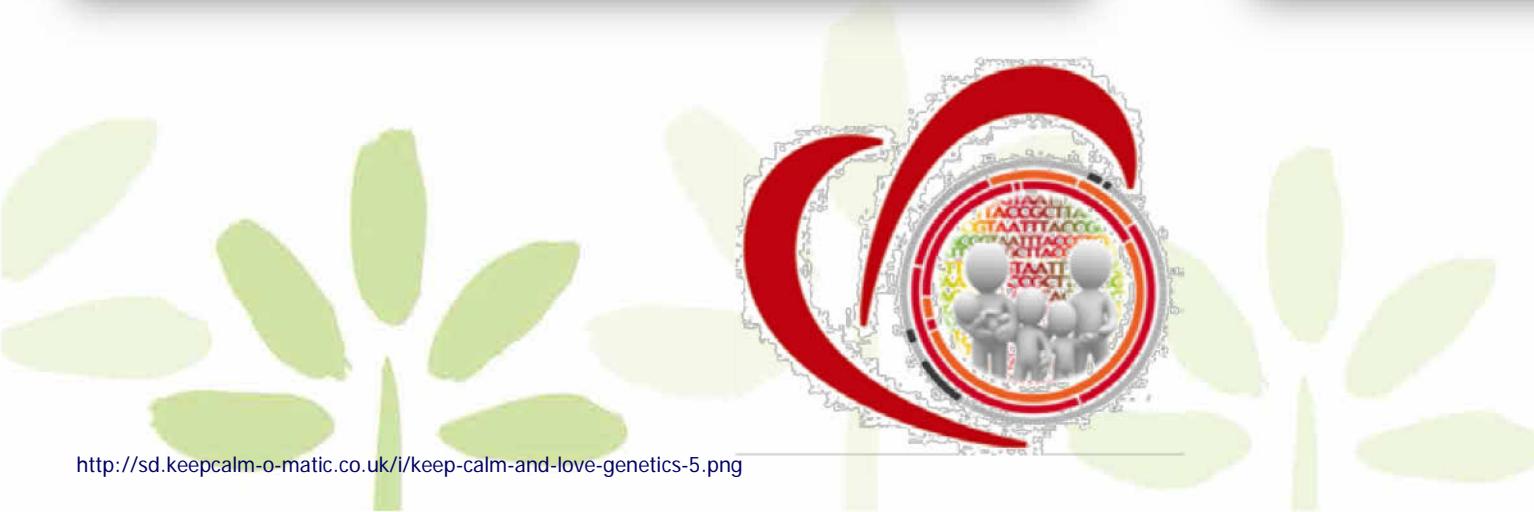


[http://kidshealth.org/parent/en\\_espanol/embrazo/genetic\\_counseling\\_esp.html](http://kidshealth.org/parent/en_espanol/embrazo/genetic_counseling_esp.html)



**Quan demanar i com interpretar un estudi genètic?**

**L'Enfocament de la mort sobtada ha de ser multidisciplinar?**





# European Reference Network

for rare or low prevalence  
complex diseases

● **Network**  
Heart Diseases  
(ERN GUARD-HEART)