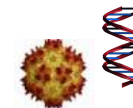




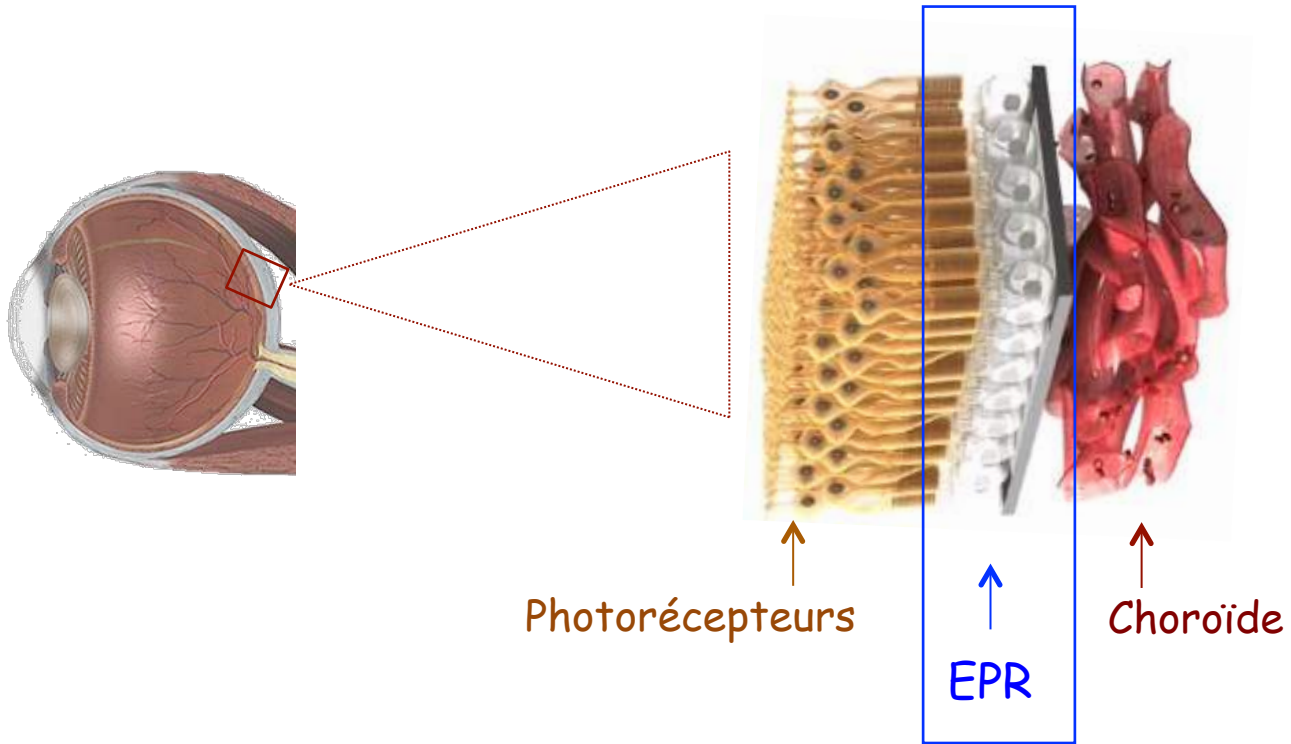
Point sur la recherche



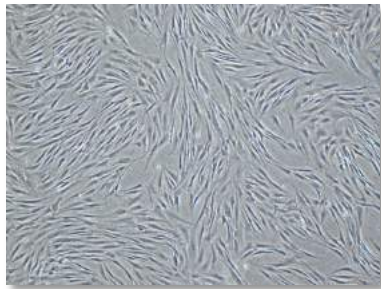
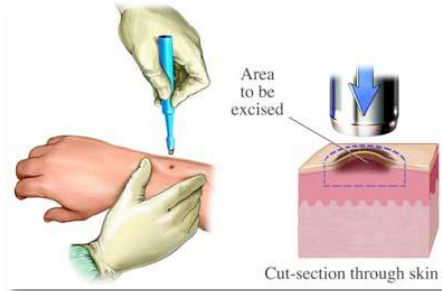
Groupe : Thérapie des dystrophies rétiniennes

Viki KALATZIS

La choroidémie et la rétine



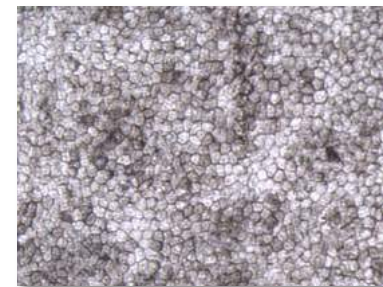
Modèles cellulaires humains de la choroidémie



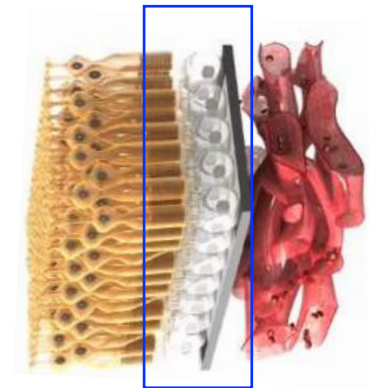
Cellules de peau



Cellules souches



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Pr Hamel

Centre de Reference des
Maladies Génétiques
Sensorielles



+ CHM1: 16 ans - Del ex8

CHM2: 37 ans - S558X

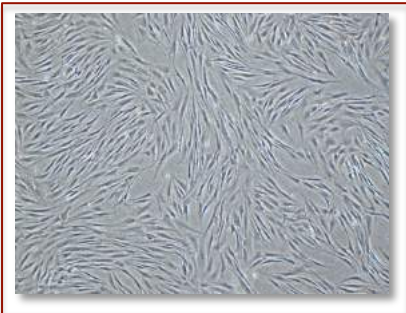
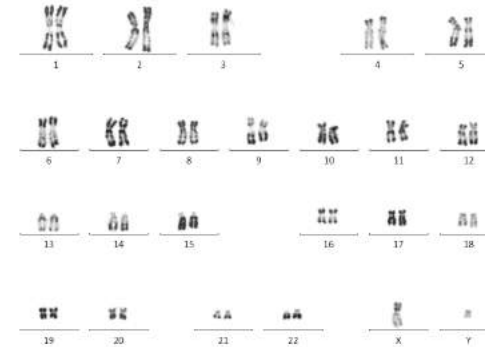
CHM3: 10 ans - L258X

CHM4: 15 ans - Del CHM

CHM5: 13 ans - Del CHM

CHM6: 39 ans - L457P

CHM7: 62 ans - Y103X



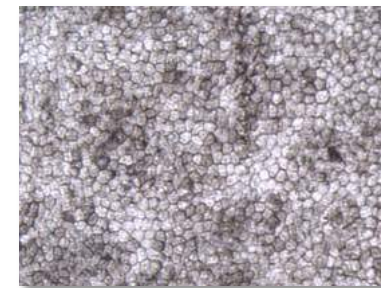
Cellules de peau



- Nouvelle méthode de culture
 - Gain de temps
 - Stabilité génétique



Cellules souches



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Mutations non-sens : traitement pharmacologique



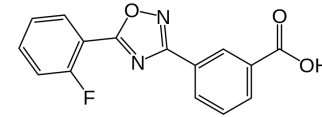
+ CHM2: 37 ans - S558X

CHM3: 10 ans - L258X

CHM7: 62 ans - Y103X



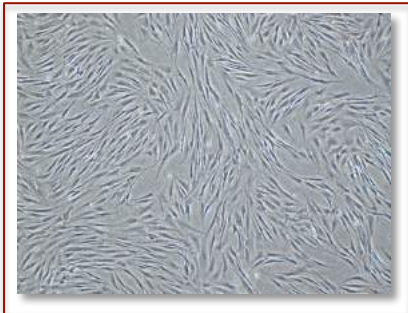
• Ataluren



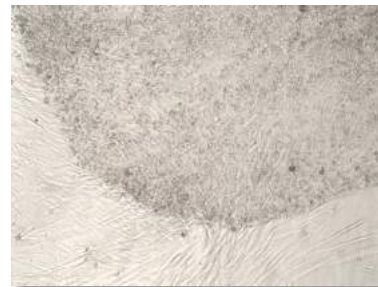
Moosajee et al., Soumis



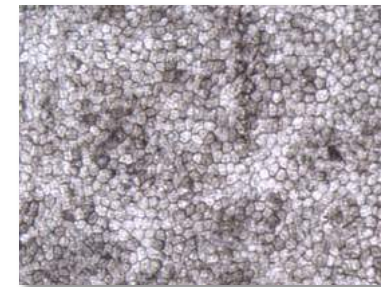
CHM-γ



Cellules de peau



Cellules souches



EPR



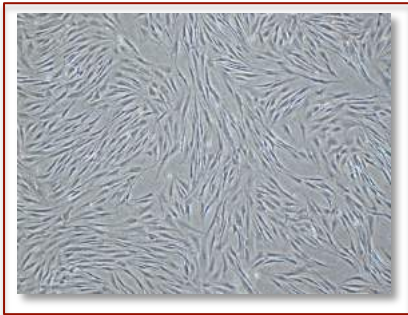
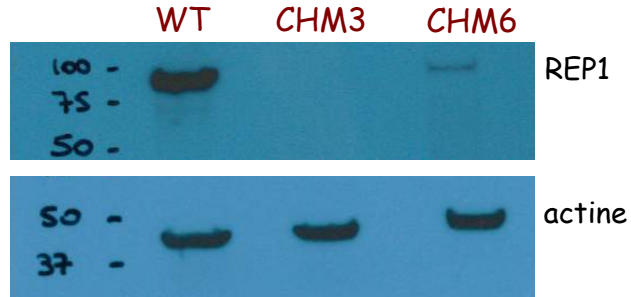
- Restauration fonctionnelle
 - Survie augmenté
- Préservation rétinienne

Mutations faux-sens : thérapie génique

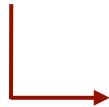


+ CHM6: 39 ans - L457P

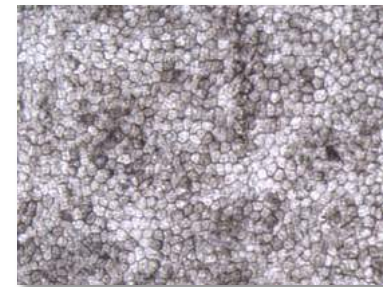
• AAV2/5



Cellules de peau



Cellules souches



EPR



Sanchez-Alcudia et al., *PLoS One*, Sous presse



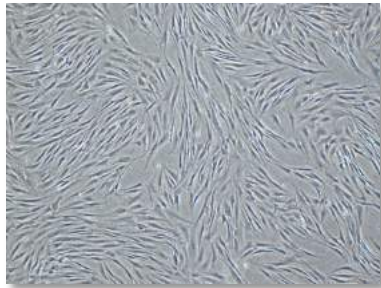
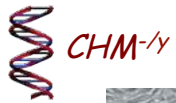
- Correlation geno-phenotype
- Fonction biochimique

Toutes mutations : physiopathologie

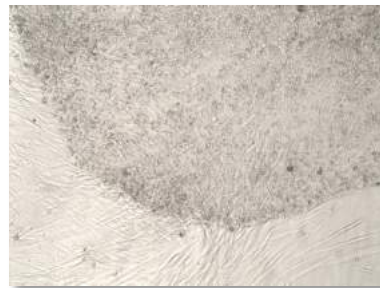
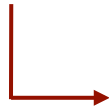


+ **CHM1**: 16 ans - Del ex8

CHM5: 13 ans - Del *CHM*



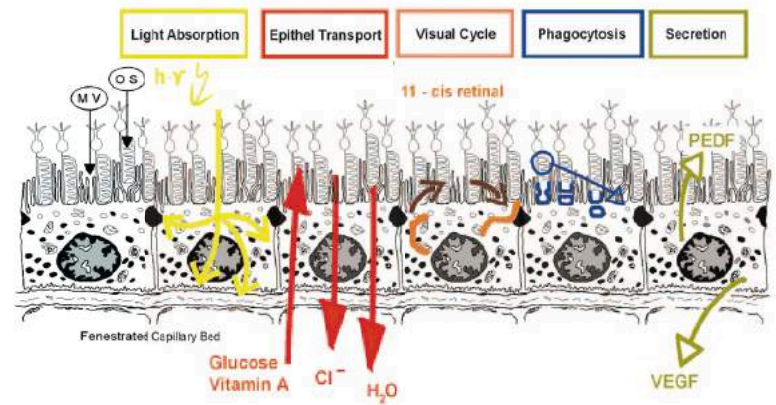
Cellules de peau



Cellules souches



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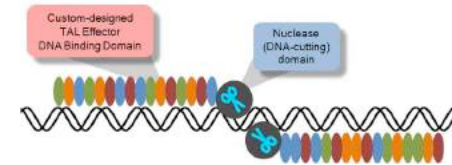
Grand mutation : correction génique



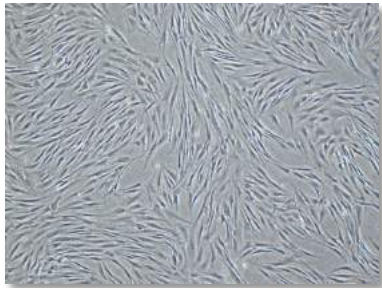
+ CHM1: 16 ans - Del ex8



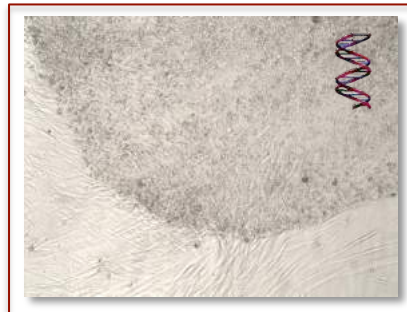
• TALEN



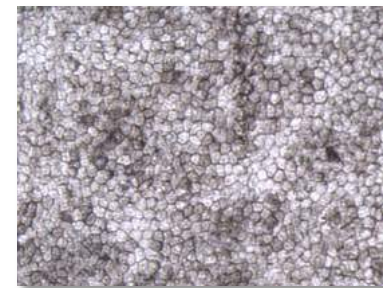
CHM-γ



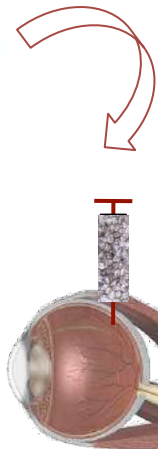
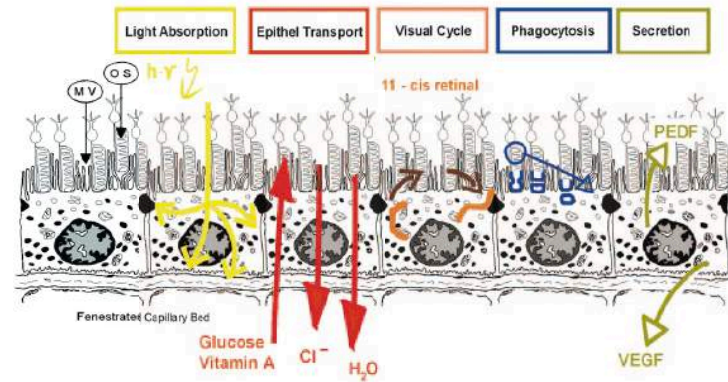
Cellules de peau



Cellules souches



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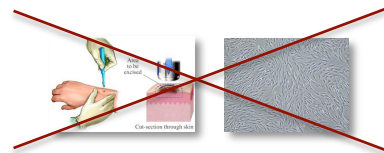




Inserm Workshop 239

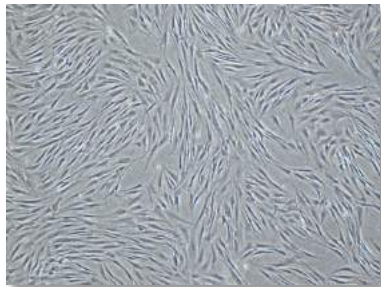
CRISPR-Cas9: breakthroughs and challenges

April 06-08, 2016 in Bordeaux



• Générer des mutations

• Réparer des mutations



Cellules de peau

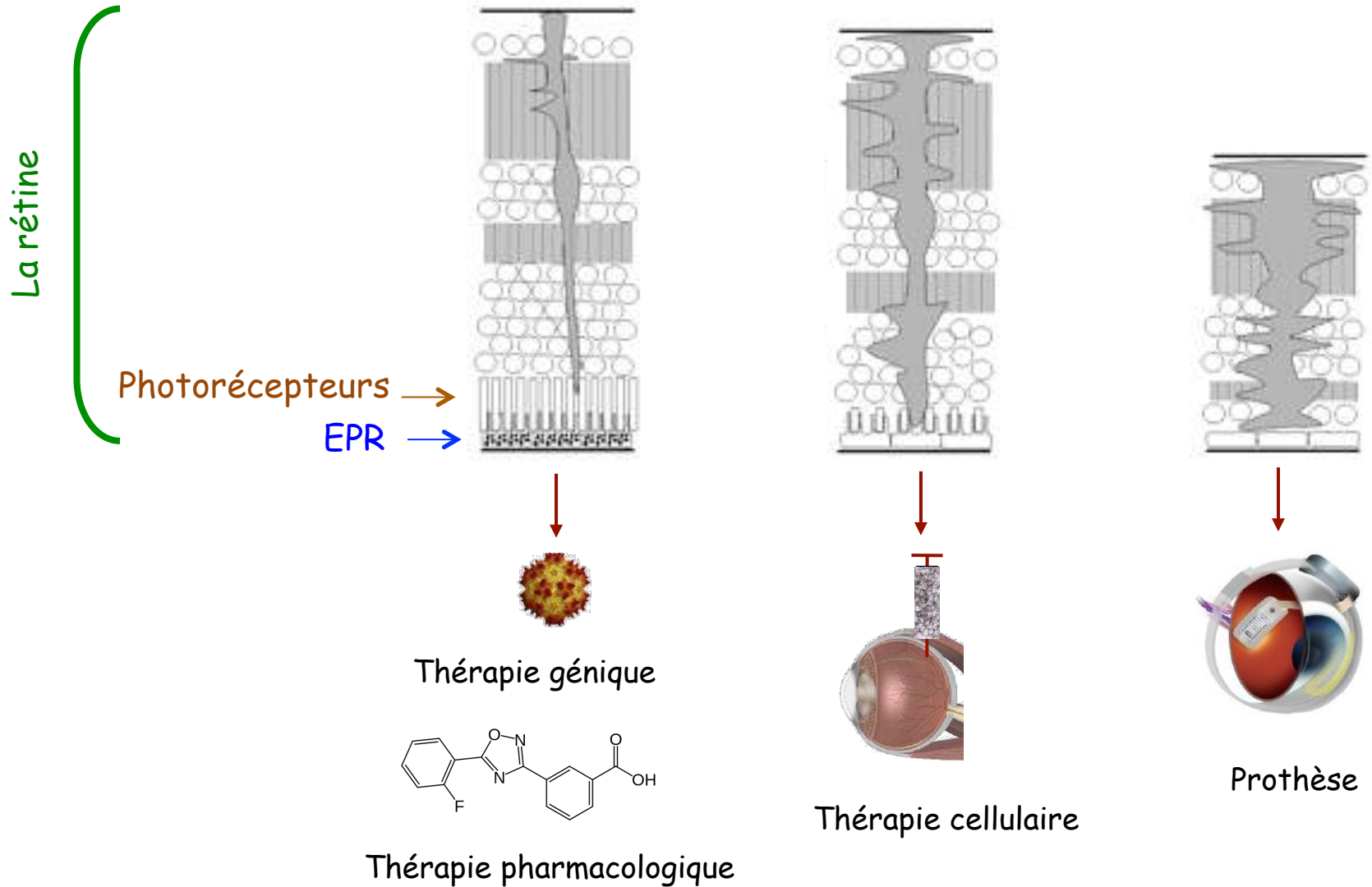


Cellules souches



EPR

Les possibilités thérapeutiques



Personnel



- Financement 4ème année
~32 000 €

Fonctionnement



- Amorçage projets CRISPR-Cas

Remerciements



Christian HAMEL

Groupe

Financements

