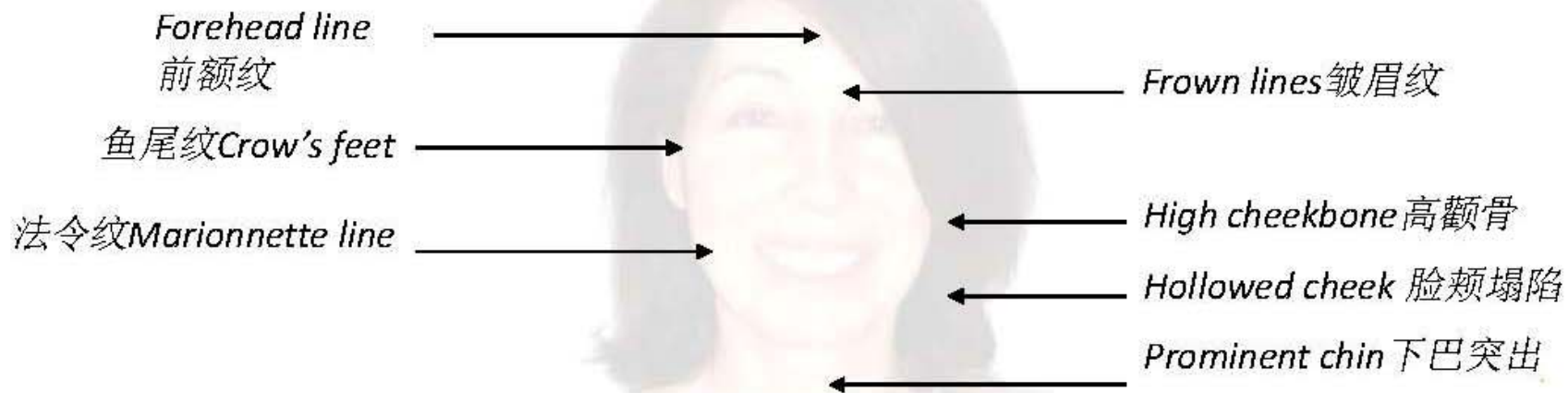


# Ageing Phenomenon



- Ageing is a natural and non reversible phenomenon  
衰老是不可改变的自然现象。
- Ageing signs are mainly due to: 衰老出现主要是由于:
  - Alteration of extracellular matrix composition leading to skin loss of elasticity  
细胞外基质成分改变引起皮肤弹性的减少
  - Change in adipose tissue distribution 脂肪组织分布的改变





# Ageing and Extra Cellular Matrix

- ECM is mainly composed of elastin, collagen and GAG  
细胞外基质主要由弹性蛋白、胶原蛋白和糖胺聚糖组成。
- With age, its composition changes, leading to a loss of skin mechanical properties  
随着年龄它的组分会有所改变，并导致大部分皮肤机械性能丧失。
- Hyaluronic acid is the main GAG of the ECM  
透明质酸是细胞外基质的主要糖胺聚糖
- Free form HA is the ground substance of the ECM, due to its viscoelastic properties  
游离形式的透明质酸是细胞外基质的基本物质，是由于它的粘弹性的性能。
- With age, it has been proven that:随着年龄，它已被证明：
  - HA level decrease, resulting from synthesis/degradation unbalance  
透明质酸水平下降，导致合成/降解不平衡
  - Or increase of HA bound to tissue through specific proteins (hyaladherins)  
或通过一些特定蛋白（如透明质酸结合蛋白），束缚透明质酸的组织的增加



# Ageing and Adipose tissue

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- **Lipoatrophy** : decrease of adipose volume, mainly on the face area  
脂肪萎缩：脂肪体积减少，主要在面部地方
- **Causes原因** :
  - Decrease of adipocyte size 脂肪细胞尺寸的减少
  - Alteration of adipocyte function 脂肪细胞功能的改变
  - Impaired fat cell differentiation 受损的脂肪细胞分化
  - Fat distribution 脂肪分布
- This loss of subcutaneous volume leads to wrinkle appearance  
这些皮下体积的减少会导致皱纹的出现



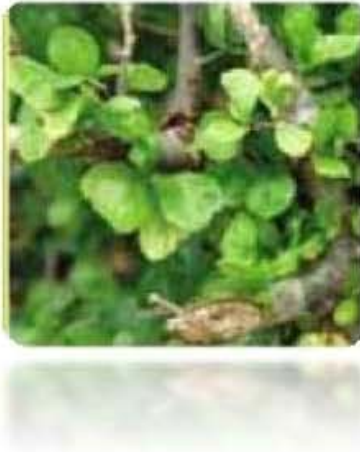
# An innovative plumping active

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- A non invasive cosmetic solution 一种非侵略性的美容方案
- « Injection-like » mechanism 类注射机理
- Cosmetic alternative to invasive surgery 化妆品美容代理外科手术
- Volumizing effect to plump the skin from within 利用增加体积来丰润皮肤
- Unique and patented vectorization technology 独特的专利量化技术



# Origin and composition



- ***Commiphora mukul* extract 印度没药提取**

Indian tree well known in Ayurvedic medicine

在印度古医药学中广泛应用的印度树木

This extract increases adipose tissue volume by increasing triglyceride storage in adipocyte

这种提取物是通过增加脂肪细胞中甘油三酯的数量来增加脂肪组织的体积。

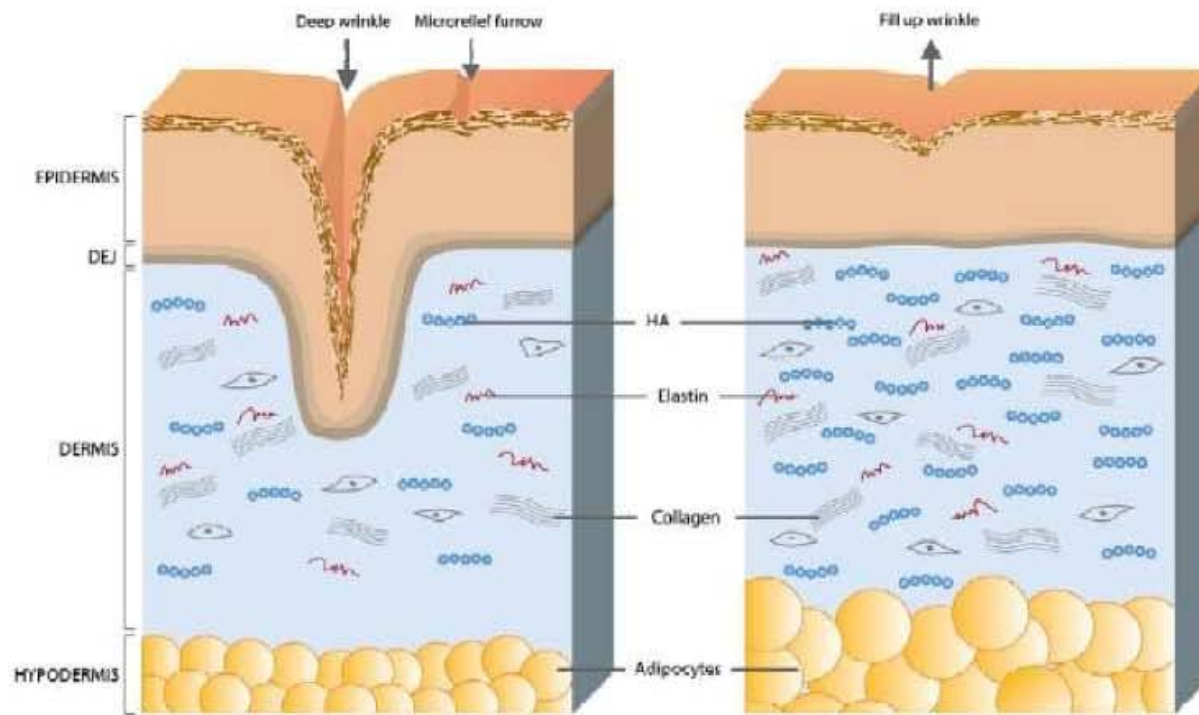
- **Hyaluronic Acid of high molecular weight 高分子量透明质酸**

Obtained by biotechnology process 通过生物技术获得

Ensuring skin viscoelastic properties. 确保皮肤弹性性能



# Mechanism of action



Increase of HA level

in the ECM 增加ECM中的透明质酸的水平

**Mechanical effect**

机械作用

Increase of adipocyte volume 增加脂肪细胞体积

**Physiological effect**

生理作用

Redens'In



## *In vivo* tests

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**Panel** : 21 volunteers from 45 to 65 years old

测试者：21名志愿者，45岁至65岁

### **Treatment**处理：

- Application of a cream formulated with Redens'In at 2%  
应用含2%Redens'In的膏霜
- Frequency : twice a day (morning et evening) during 28 days  
每天2次（早上和晚上），持续28天
- Face area : crow's feet 面部：鱼尾纹

### **Evaluation** 评估：

- Quantitative analysis of the wrinkle depth and total skin surface using a specific software : Quantirides  
使用特定软件Quantirides对皱纹深度和总的皮肤面积进行定量分析
- Macrophotographies to illustrate Rendens'In effect  
用宏观照相来说明Rendens'In 效果



# Evaluation 1: Image analysis

**Objective :** quantitative analysis of the skin appearance before/after treatment

客观性：在处理前/后分别对皮肤外观进行定量分析

**Parameters参数：**

- Total wrinkled surface 皱纹总面积
- Microrelief furrow number ( $< 55 \mu\text{m}$ ), wrinkle number ( $55-110 \mu\text{m}$ )

细纹数量（ $< 55 \mu\text{m}$ ），皱纹数量（ $55-110 \mu\text{m}$ ）

**Protocol 方案：**

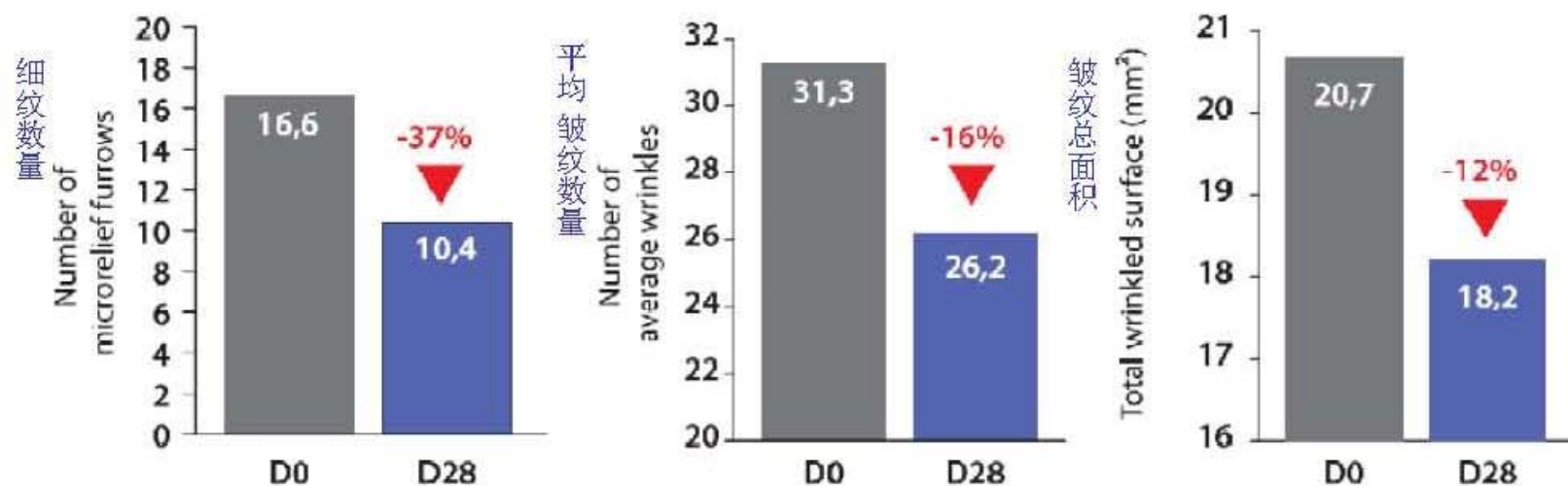
- Silicone prints are taken on the crow's feet area at D0 and at the end of the treatment;  
在D0和处理后分别用硅胶取鱼尾纹部位的模型
- Prints are lightened by oblique light ( $35^\circ$ ), and shadows are then observed by digital camera linked to a computer;
- 印模和用斜光（ $35^\circ$ ）照射，通用数码相机将阴影拍摄出来观察。
- Quantitative analysis of the skin relief by Quantirides®.  
用软件Quantirides对皮肤浮雕进行定量分析





# Evaluation 1: Image analysis

## Results结果



After 28 days, the skin is smoother

28天后，皮肤变得光滑



## Evaluation 2: macrophotographies

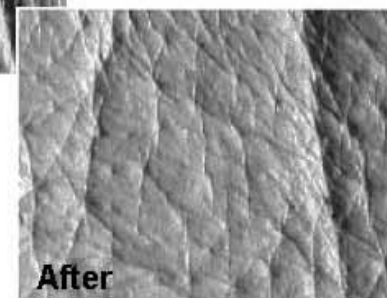
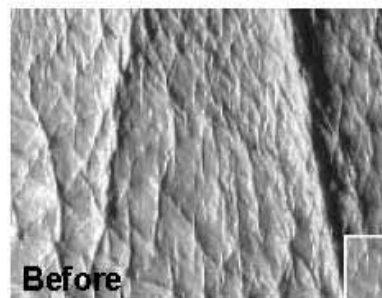
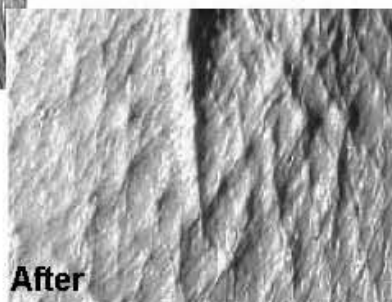
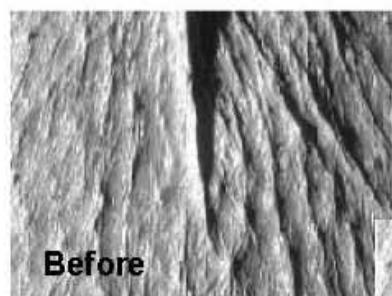
**Objective:** visualization of Redens'In effect on photography

**目标:** Redens'In 的图片视觉效果

**Protocol:** Macrophotographies of the crow's feet area are taken with a digital camera in standardized conditions

**方案:** 在标准条件下用数码相机拍摄鱼尾纹的宏观照片

### Results 结果



**Redens'In obviously reduces skin relief after 28 days**

**28天后, Redens'In 明显地减少皮肤皱纹。**



# Cosmetic uses

► Redens'In can be incorporated in: 应用范围:

- Anti-wrinkle product range 抗衰老产品
- Eye contour serum 眼部精华
- Lip contour care 嘴唇轮廓护理

► Recommended Dosage : 1.5 à 2 % 推荐用量: 1.5%~2%

► Specifications 指标:

- INCI Name : Sucrose palmitate (and) Water (and) Caprylic/capric triglyceride (and) Glyceryl linoleate (and) Commiphora mukul resin extract (and) Sodium hyaluronate (and) Tocopherol (and) Citric acid

INCI名称: 蔗糖棕榈酸酯/水/辛酸/癸酸甘油三酯/甘油亚油酸酯/印度没药树脂提取物/透明质酸/维生素E/柠檬酸

- Aspect : viscous cream 外观: 粘性霜体
- Color : Beige 颜色: 浅褐色
- Preservative : Phenoxyethanol, Potassium sorbate 防腐剂: 苯氧乙醇、山梨酸钾



# Conclusion

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- ▶ Redens'In is an alternative to invasive surgery  
Redens'In是可以代替侵略性的外科手术
- ▶ This active has a volumizing effect on the dermis and the hypodermis  
在真皮与表皮之间起到有效的丰润作用
- ▶ Its action is optimized thanks to a patented technology of vectorisation  
功效达到了最佳化是由于应用了专利技术