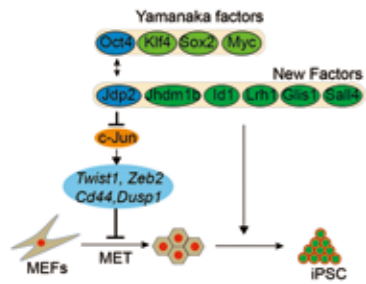
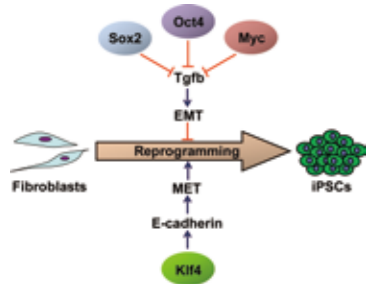


Research Group of Stem Cell Pluripotency and Reprogramming  
Guangzhou Institutes of Biomedicine and Health, Chinese Academy of Sciences

The research group launched the research of stem cell pluripotency early in China, pioneered and positively promoted the iPS cell technology, made systemic progress on cell mechanism and transdifferentiation research, discovered the new application and mechanism of Vitamin C in promoting the stem cell induce efficiency, proposed a new perspective of MET initiating cell reprogramming, set up the reprogram combination and nonintegrated transdifferentiation neural stem cell acquire technology with novel independent intellectual-property rights, opened up a new situation in the research field of stem cell, and vastly enhanced the overall innovation capacity of national stem cell research level. Through introducing international talents and cultivating talent youth, the group formed an innovative research group focusing on stem cell research, and made significant contributions for Chinese stem cell and regenerative medicine research on base construction, talent education and international development and cooperation.



建立全新的自主知识产权的重编程因子组合, 发现C-Jun是重编程的障碍  
Established the novel independent reprogramming combination with intellectual-property rights, and discovered that C-Jun is an obstacle of reprogramming



发现重编程过程中存在间充质-上皮转换 (MET) 过程  
Discovered the MET progress during cell reprogramming

Outstanding contributors of this research group

Pei Duanqing

Discovered the new application and mechanism of Vitamin C in promoting the stem cell reprogramming efficiency, revealed MET as the key process of initiating reprogramming, and established a novel independent reprogramming combination with intellectual-property rights.

Pan Guangjin

Established the technology of transdifferentiation for neural stem cells, and discovered the function of important transcription factor in the maintainance and differentiation of stem cells.

Miguel A. Esteban

Discovered Vitamin C efficiently promotes reprogramming, revealed the molecular mechanism of MET initiates reprogramming, and nominated as the outstanding representative of international science communication.

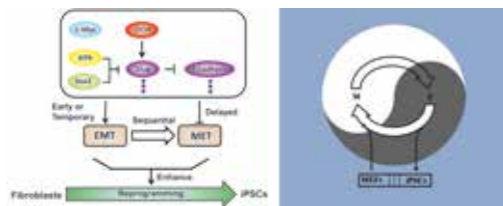
Major contributors

- Chen Jiekai
- Wang Tao
- Qin Baoming
- Zheng Hui
- Shu Xiaodong
- Liu Jing
- Qin Dajiang
- Liao Baojian
- Cai Jinglei
- Zhang Xiaofei
- Guo Lin
- Sun Hao
- Chen Keshi
- Huang Wenhao

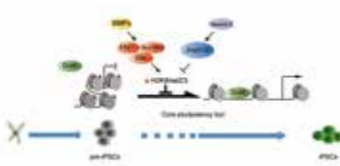


发现Vc能极大提高重编程效率, 并通过Jhdm1a/1b作用促进重编程

Discovered that Vc promotes reprogramming efficiency, and facilitates the reprogramming through Jhdm1a/1b

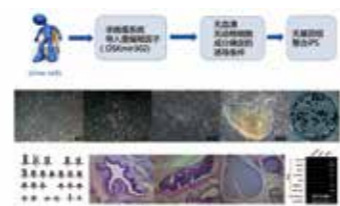


发现细胞在间充质状态与上皮状态之间的转换有利于提高重编程效率  
Discovered that EMT/ MET between cell status promoting the reprogramming

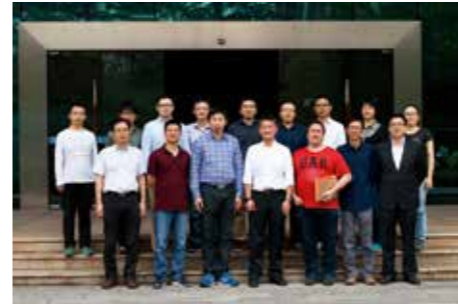


发现Vc通过去除组蛋白修饰 (H3K9) 促进重编程

Discovered that Vc promotes reprogramming through removing histone modification



建立尿液细胞非整合人iPS诱导技术体系  
Established the nonintegrated human iPS system from urine cells



集体合影  
Group photo

干细胞多能性与重编程机理研究集体

推荐单位: 中国科学院广州生物医药与健康研究院



本集体的研究“干细胞多能性与重编程机理研究”获2013年度国家自然科学二等奖

The group research "Stem Cell Pluripotency And Reprogram Mechanism" has won second class prize of 2013 "National Natural Science Award" remodeling



裴端卿 Pei Duanqing

裴端卿



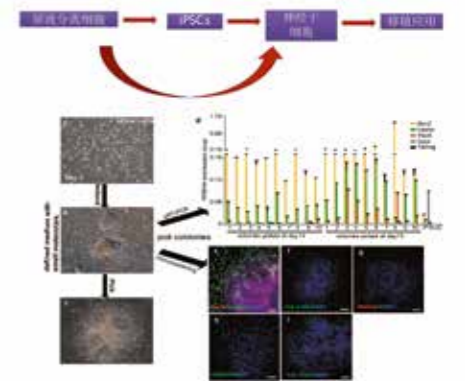
潘光锦 Pan Guangjin

潘光锦



Miguel A. Esteban

Miguel A. Esteban



利用病人尿液细胞获得可移植的神经干细胞  
The generation of transplantable neural stem cells from human urine cells



发现了重编程早期自噬和mTORC1的复杂作用并阐明了细胞重塑的发生机制

Discovered the autophagy in early reprogram process and the complicated function of mTORC1, illustrated the mechanism of cell remodeling