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Cellular models for fundamental and applied biomedical research

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Citation

Liu, J. (2018, November 28). *Cellular models for fundamental and applied biomedical research*. Retrieved from <https://hdl.handle.net/1887/67296>

Version: Not Applicable (or Unknown)

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Author: Liu, J.

Title: Cellular models for fundamental and applied biomedical research

Issue Date: 2018-11-28

List of publications

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Full papers

1. **Liu J***, Yin X*, Liu B, Zheng H, Zhou G, Gong L, Li M, Li X, Wang Y, Hu J, Krishnan V, Zhou Z, Wang Z. HP1 α mediates defective heterochromatin repair and accelerates senescence in Zmpste24-deficient cells. *Cell Cycle* 2014;13(8):1237-47.
2. Yu Z*, **Liu J***, van Veldhoven JP, IJzerman AP, SchaliJ MJ, Pijnappels DA, Heitman LH, de Vries AA. Allosteric Modulation of Kv11.1 (hERG) Channels Protects Against Drug-Induced Ventricular Arrhythmias. *Circ Arrhythm Electrophysiol.* 2016 Apr;9(4).
3. Neshati Z, **Liu J**, Zhou G, SchaliJ MJ, de Vries AA. Development of a lentivirus vector-based assay for non-destructive monitoring of cell fusion activity. *PLoS One.* 2014;9(7):e102433.
4. Engels MC, Askar SF, Jangsangthong W, Bingen BO, Feola I, **Liu J**, Majumder R, Versteegh MI, Braun J, Klautz RJ, Ypey DL, de Vries AA, Pijnappels DA. Forced fusion of human ventricular scar cells with cardiomyocytes suppresses arrhythmogenicity in a co-culture model. *Cardiovasc Res.* 2015 Sep 1;107(4):601-12.
5. **Liu J**, Volkens L, Jangsangthong W, Bart CI, Engels MC, Zhou G, SchaliJ MJ, Ypey DL, Pijnappels DA, de Vries AAF. Generation and primary characterization of iAM-1, a versatile new line of conditionally immortalized atrial myocytes with preserved cardiomyogenic differentiation capacity. *Cardiovasc Res.* 2018. doi: 10.1093/cvr/cvy134.
*Equal contribution

Selected abstracts

1. **Liu J**, Yin X, Zhou G *et al.* HP1 α -mediated premature aging via interaction with prelamin A in Zmpste24-deficient mouse embryonic fibroblasts. The 20th IAGG World Congress of Gerontology and Geriatrics. 2013, June 23-27, Seoul, Korea.
2. **Liu J**, Yu Z, Van Veldhoven JP *et al.* Full protection from drug-induced torsade de pointes-like arrhythmias by an allosteric Ikr-modulatory mechanism in rat ventricular monolayers. *Europace.* 2015, June 21-24, Milano, Italy.
3. **Liu J**, Yu Z, Van Veldhoven JP *et al.* Protection from drug-induced arrhythmias by a novel allosteric modulator in a new validated rat ventricular cardiomyocyte model. *Rembrandt Symposium.* 2016, November, Noordwijk, the Netherlands.
4. **Liu J**, Watanabe M, Jangsangthong W *et al.* Generation and characterization of iAM-1, a versatile new line of conditionally immortalized atrial myocytes with preserved cardiomyogenic differentiation capacity. *Rembrandt Symposium.* 2017, November, Noordwijk, the Netherlands.
5. **Liu J**, Volkens L, Jangsangthong W *et al.* Conditionally immortalized atrial myocytes as potential cell source for myocardial regeneration. *Netherlands Society of Gene and Cell Therapy Spring Symposium.* 2018, March 15-16, Lunteren, the Netherlands.

Acknowledgements

Acknowledgements

This thesis was completed due to the guidance, assistance and cooperation of a large group of people. Therefore, I would like to offer my acknowledgements to them who contributed to this dissertation.

First and foremost, I would like to express my most sincere appreciation to my supervisors, Prof. dr. Schalijs, Twan and Daniel. I feel extremely privileged and fortunate to have been your student. Prof. dr. Schalijs, thank you for continuous support of my PhD training. Twan, thanks for your supervise, patience and encouragement. Daniel, thanks for your guidance, insight and comprehension.

Secondly, a great debt of gratitude should be extended to my lovely colleagues and friends for all the wonderful times that we share inside and outside of the laboratory. I feel very comfortable and relaxed to work in the laboratory of Cardiology. I appreciated all people from this lab: Dick, Margreet, Cindy, Minka, Arti, Linda, Iolanda, Sasha, Magda, Emile, Niels, Pim, Sven, Juan, Annemarie, Rupa, Yoke, Marc, Zeinab, Said, Brian, Masaya and Jan, for your help, kindness and supports. I am deeply grateful to my collaborators, Prof. IJzerman, Laura, Sander, Hetty, Eline, Prof. Christoffels, Antoinette, Prof. Brundel, Deli, Prof. Wang Zimei and in particular, Zhiyi who is also my good friend and Prof. Zhou for introducing me to the world of science.

Thirdly, there are a large group of my close friends, who I wish to thank for your help, supports and joyful gatherings, such as Wenbo, Yingguang, Rui, Puning, Guangsheng, Niu Jing, Wan Yang, Hui, Cui, Xueyu and Depeng, Qingju and Xiao, Zhang Jing and Kong Li, Botao and Juan, Qinggang and Fumei. Jujitsu friends, Hugo, Martin, Lotte, Alex, Joel, Fabian, Bas, Jonathan and many others, thanks for your advice, encouragement and the pleasant times we have spent.

Last but not least, I am deeply indebted to all my family members for your unconditional and constant love, understanding, support and sacrifices during my studies. I warmly appreciate my lovely parents for exhortation and supports throughout my life. Yue, my dear sister, thanks for your encouraging and taking care of our parents when I was away from them. I am deeply grateful to my parents in law, you have provided assistance in numerous ways. My beloved son, Muze, I am so lucky and grateful to have you in my life. Finally, I would like to thank my precious husband, dear Yang, without your support and encouragement I could not have finished this work.

感谢家人一直以来对我无私的爱和付出。爸爸妈妈，感谢你们对我的培养；妹妹，感谢你对家庭责任的承担，让我没有后顾之忧；公公婆婆，感谢你们对我无微不至的关怀；洋，我的学业离不开你的鼓励和付出；沐泽，拥有你是我最大的幸福。

Curriculum Vitae

Curriculum Vitae

Jia Liu was born on July 2nd, 1987 in Shandong, China. She graduated from Weifang No.12 High School in 2005. And afterwards she obtained her bachelor's degree in biology science at Sichuan Normal University in 2009. She started her master study in State Key Laboratory of Biotherapy at Sichuan University in 2009 and she obtained her master's degree in 2012. After her graduation, she joined the Laboratory of Cardiology at Leiden University Medical Centre as a scientific researcher. In 2014, Jia Liu was supported by the China Scholarship Council to conduct a PhD study in the same department under the supervision of Prof. M.J. Schalij, Dr. A.A.F. de Vries and Dr. D.A. Pijnappels. Her doctorate dissertation consisted of two main projects, which were the generation of cell lines by conditional immortalization and the application of cellular models for biomedical research. Jia Liu together with her supervisors developed several valuable collaborations with Leiden Academic Centre for Drug Research and Division of Endocrinology at Leiden University Medical Centre, where she acquired different research skills. Her work is presented in this thesis.