Cellular models for fundamental and applied biomedical research

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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. HP1α 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**, Volkers 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.
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Selected abstracts

1. **Liu J**, Yin X, Zhou G *et al*. HP1α-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**, Volkers 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.

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Curriculum Vitae

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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.