

## РЕЗЮМЕ НАУЧНОГО РУКОВОДИТЕЛЯ

1. Фамилия, имя, отчество: Мамажакыпов Арген
2. Дата рождения: 24.06.1988 г.
3. Ученая степень, ученое звание: PhD
4. Место работы: Institute of Experimental and Clinical Pharmacology and Toxicology, University of Freiburg, Freiburg, Germany. Postdoctoral researcher.
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7. Факс, сайт:
8. Информация об образовании и научной деятельности научного консультанта:

Учебное заведение и локация	Степень/ специальность	период
Медицинский факультет ОшГУ, Ош, Кыргызстан	Врач, лечебное дело	01.09.2005 – 30.06.2011
Национальный Центр кардиологии и терапии имени академика Мирсаида Миррахимова при МЗКР	Врач, кардиология	01.09.2011 – 31.08.2013
MBML graduate program, University of Giessen, Giessen, Germany		01.10.2014 – 01.06.2017
Pulmonary Pharmacotherapy Unit, Cardio-Pulmonary Institute, University of Giessen, Giessen, Germany	PhD	01.10.2014 – 30.06.2019

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9. Профессиональная карьера (до настоящего времени)

Позиция	Период	Место работы
врач	01.09.2012 – 30.08. 2013	Станция скорой медицинской службы, кардиологическое отделение, г.Бишкек
врач	01.08.2013 – 30.10.2014	Отделение легочных гипертоний и горной медицины НЦКиТ МЗКР
Научный сотрудник	01.08.2013 – 30.10.2014	Кыргызско-индийский горный биомедицинский научный центр
Исследователь - постдокторантуры	01.07-2019 – 31.10.2019	Biochemistry Department, University of Giessen, Giessen, Germany
Исследователь - постдокторантуры	01.11.2019 – 30.11.2020	Max Planck Institute for Heart and Lung Research, Bad Nauheim, Germany
Исследователь - постдокторантуры	01.12.2020 – по настоящее время	Institute of Experimental and Clinical Pharmacology and Toxicology, University of Freiburg, Freiburg, Germany

#### 10. Научные интересы:

#### 11. Публикации (за последние 5 лет):

Mamazhakypov, A., Hein, L., & Lothar, A. (2021). Mineralocorticoid receptors in pulmonary hypertension and right heart failure: From molecular biology to therapeutic targeting. *Pharmacology & therapeutics*, 107987. Advance online publication. <https://doi.org/10.1016/j.pharmthera.2021.107987>

2. Mamazhakypov, A., Sommer, N., Assmus, B., Tello, K., Schermuly, R. T., Kosanovic, D., Sarybaev, A. S., Weissmann, N., & Pak, O. (2021). Novel Therapeutic Targets for the Treatment

of Right Ventricular Remodeling: Insights from the Pulmonary Artery Banding Model. *International journal of environmental research and public health*, 18(16), 8297. <https://doi.org/10.3390/ijerph18168297>

3. Sydykov, A., Mamazhakypov, A., Maripov, A., Kosanovic, D., Weissmann, N., Ghofrani, H. A., Sarybaev, A. S., & Schermuly, R. T. (2021). Pulmonary Hypertension in Acute and Chronic High Altitude Maladaptation Disorders. *International journal of environmental research and public health*, 18(4), 1692. <https://doi.org/10.3390/ijerph18041692>
4. Sydykov, A., Luitel, H., Mamazhakypov, A., Wygrecka, M., Pradhan, K., Pak, O., Petrovic, A., Kojonazarov, B., Weissmann, N., Seeger, W., Grimminger, F., Ghofrani, H. A., Kosanovic, D., & Schermuly, R. T. (2020). Genetic Deficiency and Pharmacological Stabilization of Mast Cells Ameliorate Pressure Overload-Induced Maladaptive Right Ventricular Remodeling in Mice. *International journal of molecular sciences*, 21(23), 9099. <https://doi.org/10.3390/ijms21239099>
5. Mamazhakypov, A., Weiß, A., Zukunft, S., Sydykov, A., Kojonazarov, B., Wilhelm, J., Vroom, C., Petrovic, A., Kosanovic, D., Weissmann, N., Seeger, W., Fleming, I., Iglarz, M., Grimminger, F., Ghofrani, H. A., Pullamsetti, S. S., & Schermuly, R. T. (2020). Effects of macitentan and tadalafil monotherapy or their combination on the right ventricle and plasma metabolites in pulmonary hypertensive rats. *Pulmonary circulation*, 10(4), 2045894020947283. <https://doi.org/10.1177/2045894020947283>
6. Pullamsetti, S. S., Nayakanti, S., Chelladurai, P., Mamazhakypov, A., Mansouri, S., Savai, R., & Seeger, W. (2020). Cancer and pulmonary hypertension: Learning lessons and real-life interplay. *Global cardiology science & practice*, 2020(1), e202010. <https://doi.org/10.21542/gcsp.2020.10>
7. Pullamsetti, S. S., Mamazhakypov, A., Weissmann, N., Seeger, W., & Savai, R. (2020). Hypoxia-inducible factor signaling in pulmonary hypertension. *The Journal of clinical investigation*, 130(11), 5638–5651. <https://doi.org/10.1172/JCI137558>
8. Veeroju S, Mamazhakypov A, Rai N, Kojonazarov B, Nadeau V, Breuils-Bonnet S, Li L, Weissmann N, Rohrbach S, Provencher S, Bonnet S, Seeger W, Schermuly R, Novoyatleva T. Effect of p53 activation on experimental right ventricular hypertrophy. *PLoS One*. 2020 Jun 19;15(6):e0234872. doi: 10.1371/journal.pone.0234872. PMID: 32559203; PMCID: PMC7304610.
9. Luitel H, Novoyatleva T, Sydykov A, Petrovic A, Mamazhakypov A, Devkota B, Wygrecka M, Ghofrani HA, Avdeev S, Schermuly RT, Kosanovic D. Yarsagumba is a Promising Therapeutic Option for Treatment of Pulmonary Hypertension due to the Potent Anti-Proliferative and Vasorelaxant Properties. *Medicina (Kaunas)*. 2020 Mar 16;56(3):131. doi: 10.3390/medicina56030131. PMID: 32188043; PMCID: PMC7142425.
10. Schnieder J, Mamazhakypov A, Birnhuber A, Wilhelm J, Kwapiszewska G, Ruppert C, Markart P, Wujak L, Rubio K, Barreto G, Schaefer L, Wygrecka M. Loss of LRP1 promotes acquisition of contractile-myofibroblast phenotype and release of active TGF- $\beta$ 1 from ECM stores. *Matrix Biol*. 2020 Jun;88:69-88. doi: 10.1016/j.matbio.2019.12.001. Epub 2019 Dec 11. PMID: 31841706.
11. Krämer M, Markart P, Drakopanagiotakis F, Mamazhakypov A, Schaefer L, Didiasova M, Wygrecka M. Pirfenidone inhibits motility of NSCLC cells by interfering with the urokinase system. *Cell Signal*. 2020 Jan;65:109432. doi: 10.1016/j.cellsig.2019.109432. Epub 2019 Nov 3. PMID: 31693876.
12. Sydykov A, Maripov A, Muratali Uulu K, Kushubakova N, Petrovic A, Vroom C, Cholponbaeva M, Duishobaev M, Satybaldyev S, Satieva N, Mamazhakypov A, Sartmyrzaeva M, Omurzakova N, Kerimbekova Z, Baktybek N, Pak O, Zhao L, Weissmann N, Sarybaev A, Avdeev S, Ghofrani HA, Schermuly RT, Kosanovic D. Pulmonary Vascular Pressure Response to Acute Cold Exposure in Kyrgyz Highlanders. *High Alt Med Biol*. 2019 Dec;20(4):375-382. doi: 10.1089/ham.2019.0046. Epub 2019 Aug 29. PMID: 31464532.

13. Mamazhakypov A\*, Viswanathan G\*, Lawrie A, Schermuly RT, Rajagopal S. The role of chemokines and chemokine receptors in pulmonary arterial hypertension. *Br J Pharmacol*. 2019 Aug 10. doi: 10.1111/bph.14826. Epub ahead of print. PMID: 31399998.
14. Mamazhakypov A, Schermuly RT, Schaefer L, Wygrecka M. Lipids - two sides of the same coin in lung fibrosis. *Cell Signal*. 2019 Aug;60:65-80. doi: 10.1016/j.cellsig.2019.04.007. Epub 2019 Apr 15. PMID: 30998969.
15. Kosanovic D, Platzek SM, Petrovic A, Sydykov A, Maripov A, Mamazhakypov A, Sartmyrzaeva M, Muratali Uulu K, Cholponbaeva M, Toktosunova A, Omurzakova N, Duishobaev M, Vroom C, Pak O, Weissmann N, Ghofrani HA, Sarybaev A, Schermuly RT. Circulating Apoptotic Signals During Acute and Chronic Exposure to High Altitude in Kyrgyz Population. *Front Physiol*. 2019 Feb 5;10:54. doi: 10.3389/fphys.2019.00054. PMID: 30804801; PMCID: PMC6370645.
16. Viswanathan G\*, Mamazhakypov A\*, Schermuly RT, Rajagopal S. The Role of G Protein-Coupled Receptors in the Right Ventricle in Pulmonary Hypertension. *Front Cardiovasc Med*. 2018 Dec 17;5:179. doi: 10.3389/fcvm.2018.00179. PMID: 30619886; PMCID: PMC6305072.
17. Sydykov A\*, Mamazhakypov A\*, Petrovic A, Kosanovic D, Sarybaev AS, Weissmann N, Ghofrani HA, Schermuly RT. Inflammatory Mediators Drive Adverse Right Ventricular Remodeling and Dysfunction and Serve as Potential Biomarkers. *Front Physiol*. 2018 May 23;9:609. doi: 10.3389/fphys.2018.00609. PMID: 29875701; PMCID: PMC5974151.
18. Sarybaev AS, Sydykov AS, Sartmyrzaeva MA, Mamazhakypov AT, Maripov AM, Dzhumagulova AS. Diagnostika i lechenie legochnykh gipertonii: vzgliad s pozitsii 2017 g [Diagnosis and treatment of pulmonary hypertension: from the point of view of 2017]. *Ter Arkh*. 2017;89(12):127-132. Russian. doi: 10.17116/terarkh20178912127-132. PMID: 29411772.
19. Maripov A, Mamazhakypov A, Sartmyrzaeva M, Akunov A, Muratali Uulu K, Duishobaev M, Cholponbaeva M, Sydykov A, Sarybaev A. Right Ventricular Remodeling and Dysfunction in Obstructive Sleep Apnea: A Systematic Review of the Literature and Meta-Analysis. *Can Respir J*. 2017;2017:1587865. doi: 10.1155/2017/1587865. Epub 2017 Jul 26. PMID: 28814913; PMCID: PMC5549475.
20. Akunov AC, Sartmyrzaeva MA, Maripov AM, Muratali Uulu K, Mamazhakypov AT, Sydykov AS, Sarybaev AS. High Altitude Pulmonary Edema in a Mining Worker With an Abnormal Rise in Pulmonary Artery Pressure in Response to Acute Hypoxia Without Prior History of High Altitude Pulmonary Edema. *Wilderness Environ Med*. 2017 Sep;28(3):234-238. doi: 10.1016/j.wem.2017.04.003. Epub 2017 Jun 30. PMID: 28673745.
21. Luitel H, Sydykov A, Schymura Y, Mamazhakypov A, Janssen W, Pradhan K, Wietelmann A, Kosanovic D, Dahal BK, Weissmann N, Seeger W, Grimminger F, Ghofrani HA, Schermuly RT. Pressure overload leads to an increased accumulation and activity of mast cells in the right ventricle. *Physiol Rep*. 2017 Mar;5(6):e13146. doi: 10.14814/phy2.13146. PMID: 28330950; PMCID: PMC5371552.
22. Pradhan K, Sydykov A, Tian X, Mamazhakypov A, Neupane B, Luitel H, Weissmann N, Seeger W, Grimminger F, Kretschmer A, Stasch JP, Ghofrani HA, Schermuly RT. Soluble guanylate cyclase stimulator riociguat and phosphodiesterase 5 inhibitor sildenafil ameliorate pulmonary hypertension due to left heart disease in mice. *Int J Cardiol*. 2016 Aug 1;216:85-91. doi: 10.1016/j.ijcard.2016.04.098. Epub 2016 Apr 16. PMID: 27140341.
23. Maripov A, Mamazhakypov A, Karagulova G, Sydykov A, Sarybaev A. High altitude pulmonary hypertension with severe right ventricular dysfunction. *Int J Cardiol*. 2013 Oct 3;168(3):e89-90. doi: 10.1016/j.ijcard.2013.07.129. Epub 2013 Aug 1. PMID: 23911270.

12. Опыт преподавания: -

13. Профессиональная активность: кардиология, горная медицина

14. Активность по университету:

15. Награды:

2011	Diploma with Honor of Osh State University Medical Faculty, Osh, Kyrgyzstan
2013	First Grade Prize for the best research work at the Young Scientist Competition of Mirrakhimov`s lectures, Bishkek, Kyrgyzstan
2014	Second Grade Prize for the best research work at the Young Scientist Competition of Mirrakhimov`s lectures, Bishkek, Kyrgyzstan
2015	Travel Grant, Next Generation Pulmonary Hypertension, London, the United Kingdom
2016	Travel Grant, Pulmonary Vascular Research Institute (PVRI), Rome, Italy
2017	Travel Grant, Munich International Autumn School for Respiratory Medicine, Munich, Germany
2018	Travel Grant, European Respiratory Society, Course Pulmonary Hypertension and Pulmonary Vascular Disease, Lausanne, Switzerland

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