EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

Curriculum Vitae

Personal information

Dilyana Mangarova

Work experience

10/2025 - present:

Scientific Officer

German Federal Office of Consumer Protection and Food Safety (BVL), Berlin, Germany

- evaluation of applications for authorization of veterinary medical products
- scientific and administrative coordination of Mutual Recognition, Decentralised and National Procedures, Regulatory advice to applicants

01/2024- 09/2025:

Postdoctoral Researcher

Charite - Universitaetsmedizin Berlin, Department of Radiology, Berlin, Germany

- evaluation and assessment of novel molecular imaging targets for cardiovascular disease and cancer
- laboratory animal anesthesia, analgesia and surgery
- implementation of the 3Rs (Reduce, Replace, Refine) in preclinical studies

01/2023 - 12/2023:

Postdoctoral resarcher

Stanford University, Deparment of Radiology, Molecular Imaging Program at Stanford (MIPS), California, USA

- laboratory animal anesthesia, analgesia and surgery
- assessment of molecular imaging techniques for targeting senescence

04/2019 - 12/2022:

Doctoral researcher

- assessment of novel imaging modalities for cardiovascular disease
- laboratory animal anesthesia, analgesia and surgery

Education and training

04/2019 - 04/2022:

Free University Berlin in cooperation with Charite - Universitaetsmedizin Berlin, Germany

Doctorate degree, Dr. med. vet.

Development and evaluation of novel imaging modalities for the characterization of abdominal aortic aneurysms in a mouse model

10/2013 - 03/2019:

Free University Berlin, Germany

Veterinary Medicine Degree, State Examination

Additional information

Publications

1. **Mangarova DB**, Reimann C, Kaufmann JO, Möckel J, Kader A, Adams LC, Ludwig A, Onthank D, Robinson S, Karst U, Helmer R, Botnar R, Hamm B, Makowski MR, Brangsch J. Elastin-specific MR probe for visualization and evaluation of an interleukin-1β targeted therapy for atherosclerosis. Sci Rep. 2024 Sep 4;14(1):20648. doi: 10.1038/s41598-024-71716-5. PMID: 39232217; PMCID: PMC11375012.
2. **Mangarova DB**, Bertalan G, Jordan J, Brangsch J, Kader A, Möckel J, Adams LC, Sack I, Taupitz M, Hamm B, Braun J, Makowski MR. Microscopic multifrequency magnetic resonance elastography of ex vivo abdominal aortic aneurysms for extracellular matrix imaging in a mouse model. Acta Biomater. 2022 Mar 1;140:389-397. doi: 10.1016/j.actbio.2021.11.026. Epub 2021 Nov 21. PMID: 34818577.
3. **Mangarova DB**, Kaufmann JO, Brangsch J, Kader A, Möckel J, Heyl JL, Verlemann C, Adams LC, Ludwig A, Reimann C, Poller WC, Niehaus P, Karst U, Taupitz M, Hamm B, Weller MG, Makowski MR. ADAMTS4-Specific MR Peptide Probe for the Assessment of Atherosclerotic Plaque Burden in a Mouse Model. Invest Radiol. 2025 Aug

1;60(8):499-507. doi: 10.1097/RLI.0000000000001152. Epub 2025 Jan 14. PMID: 39804796; PMCID: PMC12233170.
4. **Mangarova DB**, Brangsch J, Mohtashamdolatshahi A, Kosch O, Paysen H, Wiekhorst F, Klopfleisch R, Buchholz R, Karst U, Taupitz M, Schnorr J, Hamm B, Makowski MR. Ex vivo magnetic particle imaging of vascular inflammation in abdominal aortic aneurysm in a murine model. Sci Rep. 2020 Jul 24;10(1):12410. doi: 10.1038/s41598-020-69299-y. PMID: 32709967; PMCID: PMC7381631.
5. Suryadevara V, Hudgins AD, Rajesh A, Pappalardo A, Karpova A, Dey AK, Hertzel A, Agudelo A, Rocha A, Soygur B, Schilling B, Carver CM, Aguayo-Mazzucato C, Baker DJ, Bernlohr DA, Jurk D, **Mangarova DB**, Quardokus EM, Enninga EAL, Schmidt EL, Chen F, Duncan FE, Cambuli F, Kaur G, Kuchel GA, Lee G, Daldrup-Link HE, Martini H, Phatnani H, Al-Naggar IM, Rahman I, Nie J, Passos JF, Silverstein JC, Campisi J, Wang J, Iwasaki K, Barbosa K, Metis K, Nernekli K, Niedernhofer LJ, Ding L, Wang L, Adams LC, Ruiyang L, Doolittle ML, Teneche MG, Schafer MJ, Xu M, Hajipour M, Boroumand M, Basisty N, Sloan N, Slavov N, Kuksenko O, Robson P, Gomez PT, Vasilikos P, Adams PD, Carapeto P, Zhu Q, Ramasamy R, Perez-Lorenzo R, Fan R, Dong R, Montgomery RR, Shaikh S, Vickovic S, Yin S, Kang S, Suvakov S, Khosla S, Garovic VD, Menon V, Xu Y, Song Y, Suh Y, Dou Z, Neretti N. SenNet recommendations for detecting senescent cells in different tissues. Nat Rev Mol Cell Biol. 2024 Dec;25(12):1001-1023. doi: 10.1038/s41580-024-00738-8. Epub 2024 Jun 3. PMID: 38831121; PMCID: PMC11578798.
6. Kader A, Brangsch J, Kaufmann JO, Zhao J, **Mangarova DB**, Moeckel J, Adams LC, Sack I, Taupitz M, Hamm B, Makowski MR. Molecular MR Imaging of Prostate Cancer. Biomedicines. 2020 Dec 22;9(1):1. doi: 10.3390/biomedicines9010001. PMID: 33375045; PMCID: PMC7822017.
7. Kader A, Kaufmann JO, **Mangarova DB**, Moeckel J, Adams LC, Brangsch J, Heyl JL, Zhao J, Verlemann C, Karst U, Collettini F, Auer TA, Hamm B, Makowski MR. Collagen-Specific Molecular Magnetic Resonance Imaging of Prostate Cancer. Int J Mol Sci. 2022 Dec 31;24(1):711. doi: 10.3390/ijms24010711. PMID: 36614152; PMCID: PMC9821004.
8. Kaufmann JO, Brangsch J, Kader A, Saatz J, **Mangarova DB**, Zacharias M, Kempf WE, Schwaar T, Ponader M, Adams LC, Möckel J, Botnar RM, Taupitz M, Mägdefessel L, Traub H, Hamm B, Weller MG, Makowski MR. ADAMTS4-specific MR probe to assess aortic aneurysms in vivo using synthetic peptide libraries. Nat Commun. 2022 May 23;13(1):2867. doi: 10.1038/s41467-022-30464-8. PMID: 35606349; PMCID: PMC9126943.
9. Nernekli K, **Mangarova DB**, Shi Y, Varniab ZS, Chang E, Tikenogullari OZ, Pisani L, Tikhomirov G, Wang G, Daldrup-Link HE. Two-Photon Intravital Microscopy of Glioblastoma in a Murine Model. J Vis Exp. 2024 Mar 1;(205):10.3791/66304. doi: 10.3791/66304. PMID: 38497657; PMCID: PMC11606332.
10. Kader A, Kaufmann JO, **Mangarova DB**, Moeckel J, Brangsch J, Adams LC, Zhao J, Reimann C, Saatz J, Traub H, Buchholz R, Karst U, Hamm B, Makowski MR. Iron Oxide Nanoparticles for Visualization of Prostate Cancer in MRI. Cancers (Basel). 2022 Jun 13;14(12):2909. doi: 10.3390/cancers14122909. PMID: 35740575; PMCID: PMC9221397.
11. Adams LC, Brangsch J, Kaufmann JO, **Mangarova DB**, Moeckel J, Kader A, Buchholz R, Karst U, Botnar RM, Hamm B, Makowski MR, Keller S. Effect of Doxycycline on Survival in Abdominal Aortic Aneurysms in a Mouse Model. Contrast Media Mol Imaging. 2021 Apr 27;2021:9999847. doi: 10.1155/2021/9999847. PMID: 34007253; PMCID: PMC8099506.
12. Nernekli K, **Mangarova DB**, Suryadevara V, Hajipour M, Tang JH, Wang J, Liang T, Harris M, Ueyama T, Lyons JK, Moseley ME, Roudi R, Pisani L, von Krüchten R, Duwa R, Lu-Liang SY, Shokri Varniab Z, Vasyliv I, Das N, Murayama M, Shinohara I, Pratx G, Goodman SB, Meade TJ, Daldrup-Link HE. MRI detection of senescent cells in porcine knee joints with a β-galactosidase responsive Gd-chelate. Npj Imaging. 2025;3(1):18. doi: 10.1038/s44303-025-00078-y. Epub 2025 May 3. PMID: 40330124; PMCID: PMC12049270.
13. Kader A, Brangsch J, Reimann C, Kaufmann JO, **Mangarova DB**, Moeckel J, Adams LC, Zhao J, Saatz J, Traub H, Buchholz R, Karst U, Hamm B, Makowski MR. Visualization and Quantification of the Extracellular Matrix in Prostate Cancer Using an Elastin Specific Molecular Probe. Biology (Basel). 2021 Nov 22;10(11):1217. doi: 10.3390/biology10111217. PMID: 34827210; PMCID: PMC8615039.
14. Möckel J, Brangsch J, Reimann C, Kaufmann JO, Sack I, **Mangarova DB**, Kader A, Taupitz M, Adams LC, Keller S, Ludwig A, Hamm B, Botnar RM, Makowski MR. Assessment of Albumin ECM Accumulation and Inflammation as Novel In Vivo Diagnostic Targets for Multi-Target MR Imaging. Biology (Basel). 2021 Sep 27;10(10):964. doi: 10.3390/biology10100964. PMID: 34681063; PMCID: PMC8533611.
15. Zhao J, Kader A, **Mangarova DB**, Brangsch J, Brenner W, Hamm B, Makowski MR. Dynamic Contrast-Enhanced MRI of Prostate Lesions of Simultaneous [⁶⁸Ga]Ga-PSMA-11 PET/MRI: Comparison between Intraprostatic Lesions and Correlation between Perfusion Parameters. Cancers (Basel). 2021 Mar 19;13(6):1404. doi: 10.3390/cancers13061404. PMID: 33808685; PMCID: PMC8003484.
16. Kader A, Snellings J, Adams LC, Gottheil P, **Mangarova DB**, Heyl JL, Kaufmann JO, Moeckel J, Brangsch J, Auer TA, Collettini F, Sauer F, Hamm B, Käs J, Sack I, Makowski MR, Braun J. Sensitivity of magnetic resonance elastography to extracellular matrix and cell motility in human prostate cancer cell line-derived xenograft models. Biomater Adv. 2024 Jul;161:213884. doi: 10.1016/j.bioadv.2024.213884. Epub 2024 Apr 29. PMID: 38723432.
17. Zhao J, **Mangarova DB**, Brangsch J, Kader A, Hamm B, Brenner W, Makowski MR. Correlation between Intraprostatic PSMA Uptake and MRI PI-RADS of [⁶⁸Ga]Ga-PSMA-11 PET/MRI in Patients with Prostate Cancer: Comparison of PI-RADS Version 2.0 and PI-RADS Version 2.1. Cancers (Basel). 2020 Nov 26;12(12):3523. doi: 10.3390/cancers12123523. PMID: 33255971; PMCID: PMC7759872.
18. Saladino GM, **Mangarova DB**, Nernekli K, Wang J, Annio G, Varniab ZS, Khatoon Z, Ribeiro Morais G, Shi Y, Chang E, Pisani LJ, Tikhomirov G, Falconer RA, Daldrup-Link HE. Multimodal imaging approach to track theranostic nanoparticle accumulation in glioblastoma with magnetic resonance imaging and intravital microscopy. Nanoscale. 2025 Apr 17;17(16):9986-9995. doi: 10.1039/d5nr00447k. PMID: 40135284; PMCID: PMC11937943.

Projects

Memberships

Other Relevant Information