BUZAEV



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Private MRgFUS centre

<u>https://buzaevclinic.ru</u>

I dream of a world where it is easy for people to maintain a long, healthy, and happy life, and all who seek help are healed non-invasively, painlessly and without a single mistake

PROFESSIONAL PROFILE

22 YEARS | A DOCTOR 13 YEARS | A LEADER AND A MANAGER 12 YEARS | A UNIVERSITY TEACHER

An academic professor, leader, healthcare innovator, and researcher with the mission to do everything known and possible to heal and transform the world into a more humane one.

A co-founder and the chief business development officer of the first in the former Eastern Bloc region non-invasive <u>neurosurgical MRgFUS</u> centre - <u>International Medical Centre named after V.S. Buzaev</u>. Having learned about a new technology that allows predictable operations on the brain's deep structures without incisions, I decided we should be the <u>first</u> to introduce it in our country. We made a business plan, found an investor, assembled an incredible team, <u>launched the project</u> <u>during the epidemic restrictions</u>, and promoted this treatment method in the conditions of reimbursement absence, complete the lack of awareness among patients, and the conservatism of doctors. As a result, we have already treated more than 200 patients from <u>the 20 neighbouring countries</u>, and the centre became profitable three months after launch.

From 2012 to 2021, I was the head specialist in interventional cardiology assigned by the Ministry of Health of the Republic of Bashkortostan. I carried out the tasks of its development in the Republic of Bashkortostan, with a population of more than 4 million people, and <u>achieved two-hour availability</u> of primary percutaneous coronary intervention throughout the Republic.

Previously, for 11 years, I held the role of Chief of the Interventional Cardiology department at the <u>Republican Cardio Centre</u>, where my responsibilities included providing <u>department leadership and strategy formation</u>, studying, introducing, performing, and teaching a variety of medical procedures, and overseeing the implementation of new techniques with over 11,000 patients discharged and consistently high rankings among other top national hospitals.

As a Bashkir State Medical University professor, I have extensive experience giving lectures and conducting seminars, regularly appearing at <u>international</u> <u>congresses</u> and national <u>TV news broadcasts</u> as an expert, with vast international training and scientific publications in reputable international journals.

EXPERTIZE

- University teaching
- Business Development
- Interventional Cardiology
- Healthcare
- Leadership
- Management
- Research
- Business Planning
- Innovation Penetration
- Filmmaking
- Data Analisys

TECH SKILLS

- R Programming
- Neural Networks
- Moodle Platform
- Presentation Design
- Adobe Photoshop
- DaVinci Resolve
- SQL, MS Access, VBA
- HTML, Wordpress

LANGUAGES

- English (C2 Tracktest)
- French, B1
- Russian, native

PROFESSIONAL EXPERIENCE

PROFESSOR (CARDIOVASCULAR SURGERY)

2011 - Present | <u>Bashkir State Medical University (BSMU)</u> | Ufa, Russia also held the roles of associate professor 2016–2020, assistant (2011-2016) Delivered lectures, led seminars, participated in final oral exams, conducted research, developed an online course on the Moodle platform, and appeared at international congresses as a moderator and speaker.

CO-FOUNDER AND CHIEF BUSINESS DEVELOPMENT OFFICER

2019 - Present | V.S. Buzaev International Medical Centre | Ufa, Russia

- I established the first neuro-MRgFUS centre in Russia.
- I have developed the brand mission and vision. I have led the marketing and penetration of awareness about technology.
- I organised the first in the world launch with remote proctorship guidance (due to COVID travel limitations).

CONSULTANT (HEART DISEASES)

2021 - Present | <u>V.S. Buzaev International Medical Centre</u> | Ufa, Russia Leading a multidisciplinary team in challenging diagnostic cases, I received 100% positive feedback on patient voting platforms like <u>ProDoctorov.ru</u>.

REPUBLIC OF BASHKORTOSTAN

HEAD INTERVENTIONAL CARDIOLOGIST AND RADIOLOGIST

2012 - 2021 | Healthcare Ministry | Ufa, Russia

I accepted the supervision of interventional cardiology departments in all four medical centres of the Bashkortostan Republic. I developed a strategy for interventional cardiology and helped Chief Medical Officers develop this field. I left the service with 15 centres and a two-hour availability of PCI.

VICE CHIEF MEDICAL OFFICER IN INNOVATIONS

2021 | <u>Bashkir State Medical University Clinic</u> | Ufa, Russia Researched and prepared to implement novel technologies in the clinic.

CHIEF OF INTERVENTIONAL CARDIOLOGY

2010 - 2021 | Republican Cardio Centre | Ufa, Russia

- Department leadership. Studied. Introduced. Performed. Taught.
- 15 Healthcare Ministry or Government awards in medicine
- Country-level pioneer (Russia) in the following: OCT (2011), IVUS (2012), FFR (2012), Rotablator (2012), Absorb (2013), RDN (2013), UltralCE (2014), TAVI (2014), PVL Closure (2017), Philips EchoNavigator and HeartNavigator modalities (2019)
- Position in <u>official ratings</u> in all of Russia in 2020: the third in the number of coronary angiographies, the fourth in the number of interventional treatments, and the fifth in the total number of cathlab patients.
- Trained more than twenty fellows. 5 are successful department chiefs.
- Member of the ISO9001 and EFQM hospital teams

INTERVENTIONAL CARDIOLOGIST

2004 - 2010 | Republican Cardio Centre | Ufa, Russia

- Performed coronary and structural interventions.
- Developed a paperwork automation software.
- One of the Russian-level pioneers in radial access (2009).

EDUCATION

Master's Degree in Fine Arts

2020 - 2023 | Anaheim University Akira Kurosawa School of Digital Filmmaking | USA, California (online)

Doctor of Sciences in Medicine

2007 - 2018 | Bashkir State Medical University | Ufa, Russia I defended my thesis at the <u>Federal State Budgetary Scientific Institution</u> <u>"RSCH, named after A.I. Academician B.V. Petrovsky"</u> (Moscow, Russia). Degree document issued by the Higher Attestation Commission (Moscow, Russia) I developed a continuous feedback system of heart revascularization results for clinical decision support. It gathered important factors, the decision, treatment, and the late result. I used these factors for machine learning. After that, the neural network model has been helpful for clinical decision support in multifactor clinical situations.

Six Sigma Black Belt

2018 | Management and Strategy Institute (USA)

PHD

2001 - 2006 | Bashkir State Medical University | Ufa, Russia I defended my thesis at the <u>Novosibirsk Research Institute of Circulatory</u> <u>Pathology, named after Academician E.N. Meshalkin</u> (Novosibirsk). Degree document issued by the Higher Attestation Commission (Moscow, Russia) The topic is the mathematical modeling of hemodynamics and prediction of left ventricle volume after resectioning its aneurysm.

Lawyer, with honours

2005 - 2008 | Bashkir Academy of Public Administration and Management under the President of the Republic of Bashkortostan | Ufa, Russia

MD, with honours

2019 | BSMU Primary specialization | Healthcare manager

2005 - 2006 | Novosibirsk State Medical Academy | Cardiologist

2002 - 2004 | BSMU Clinical residence | Surgeon

2001 - 2002 | BSMU Internship | Pediatric surgeon

1995 - 2001 | Bashkir State Medical University | Ufa, Russia. Peadiatrician.

Grant of the Ufa mayor for high achievements in education, scientific research, and active participation in the public and cultural life of the city. I was awarded twice in 2000 and 2001.

2020 "The Spiral" short film

Festivals: 6 Selected, 6 Award Winner, 2 Semi-Finalist, 1 Honorable Mention

2020 Gratitude letter

the medical chamber of the Republic of Bashkortostan

2021 Honorary diploma

Kirovsky urban district of Ufa

2019 Honorary diploma

Government of the Republic of Bashkortostan

2017 Gratitude letter

signed by the Minister of Internal Affairs of the Republic of Bashkortostan

2016 Gratitude letter

The Federation Council Committee on Social Policy

2016 TOP-30 the most

famous people of Ufa "Science" nomination "Sobaka" magazine

2016 Governor Letter

Republic Bashkortostan Government certificate of honour for contribution to quality development in Republican Heart Centre (signed by Governor)

2013 Minister Letter

Gratitude signed by the Minister of Internal Affairs of the Republic of Bashkortostan

2011 Purple Heart

Nominee for the National Award in Cardiology

2011 Excellent Healthcare Worker

Order of the Ministry of Health on awarding the highest category of specialist in interventional cardiology

PROJECTS

Hospital Information System

2002 - 2018 | Independent | Ufa, Russia

A 17-year project I led enthusiastically with no investments and 80% independently. A software for automating the work of one doctor has turned into a system for monitoring long-term results of patient treatment and a clinical decision support system with elements of AI. The system worked in the Republican Heart Centre until 2018, and then the ministry implemented it in the state regional medical information system.

MRgFUS neurosurgery clinical research

2020 - Present | Bashkir State Medical University | Ufa, Russia

I can't imagine treatment without tracking long-term results for all those treated. The follow-up time for some of our patients after MRgFUS has been for more than three years. We use observational data on long-term outcomes in scientific work. We research Parkinson's disease, MRgFUS targets, and dystonia.

Two-hour PCI availability for patients

with acute myocardial infarction in the Republic of Bashkortostan.

2012 - 2021 | Ministry of Health | Republic of Bashkortostan

Working as the Ministry of Health of the Republic of Bashkortostan's head specialist in interventional cardiology, I led the implementation of the two-hour PCI availability for patients with acute myocardial infarction. I developed the strategy with the ministry team, participated in planning and facility construction control, trained medical staff, planned disposal supplies, and created written processes. I performed the launch of these centres and provided long-term support and mentorship after the launch.

FUNNC-2021 MRgFUS congress

2021 | International Medical Centre named after V.S. Buzaev | Ufa, Russia <u>Focused Ultrasound Non-invasive Neurosurgery Congress FUNNC-2021</u> This conference aimed to popularise the MRgFUS treatment method worldwide and exchange knowledge of the best practices. We met world-famous leaders and broadcasted a master class from the MRgFUS operating room, where the team demonstrated the treatment in live mode.

"The Spiral" film

2020 | International Medical Centre named after V.S. Buzaev | Ufa, Russia | directed an <u>award-winning film</u> about one brave girl inspired by a fantastic dream. The film is based on a real story. IMDB. FilmFreeway.

"The New Surgery" film

2021 | International Medical Centre named after V.S. Buzaev | Ufa, Russia | directed <u>a short documentary</u> about the MRgFUS breakthrough technology and the opening of our centre. FilmFreeway.

CONFERENCES

2015 China, Changchun 16th Cardiology Congress & 5th International Changbaishan Forum. Faculty, presenter

2015 China, Dalian Dalian International Cardiovascular Forum & 2015 Annual Symposium of Dalian Cardiology Committee. Faculty, presenter

2015 Korea, Seoul 8th Imaging and Physiology Summit IPS-2015. Presenter

2016 Korea, Seoul <u>Transcatheter Therapies Asia Pacific (TCTAP).</u> Faculty of the Year, presenter

2016 France, Paris EUROPCR-2016. Presenter

2016 China, Dalian The 14th China Dalian International Cardiovascular Forum (DCIF). Faculty, presenter

2016 China, Harbin Sixth International Conference of heart diseases in cold climate zone. Faculty, presenter

2017 China, Changchun 18th Scientific Annual Congress of Jilin Society of Cardiology by Cardiovascular centre, the Second Hospital of Jilin University. Faculty, presenter

2017 Korea, Seoul <u>Transcatheter Therapies Asia Pacific (TCTAP).</u> Faculty of the Year, presenter

2018 China, Changchun The 8th Changbai Mountains International Intervention Forum. Faculty, presenter

2018 China, Dalian The 16th China Dalian International Cardiovascular Forum (DCIF). Faculty, presenter

2019 China, Guangzhou CSI Asia-Pacific 2019. Presenter

2019 Germany, Frankfurt CSI Frankfurt 2019. Challenging cases from Russia Co-organizer of the session, presenter

2019 China, Changchun Northeast Asia Cardiology Forum. Ninth Changbai Mountain International Interventional Forum. 24 August 2019. Faculty, presenter

2019 China, Dalian 17th International Cardiovascular Forum Dalian Faculty, presenter

2019 Korea, Seoul <u>Transcatheter Therapies Asia Pacific (TCTAP)</u> Faculty of the Year, panelist, presenter

2020 China, Dalian ONLINE: The 18th Dalian International Cardiovascular Congress. Presenter

2020 Korea, Seoul ONLINE: Transcatheter Therapies Asia Pacific (TCTAP). Faculty of the Year, panelist, presenter

2021 Korea, Seoul ONLINE: Transcatheter Therapies Asia Pacific Faculty of the year, panelist, presenter

2022 China, Changchun ONLINE: Jilin University Cardiovascular Disease international forum. Presenter

2022 Korea, Seoul ONLINE: Transcatheter Therapies Asia Pacific Faculty of the Year, panelist, presenter

PUBLICATIONS

Buzaev IV, Galimova RM, Nabiullina DI, Illarioshkin SN, Zagidullin NS, Safin SM. <u>Magnetic resonance imaging-guidedfocused ultrasound thalamotomy</u> <u>launch with remote telemedicine international proctorship</u>. Chronic Dis Transl Med. 2023;1-11.doi:10.1002/cdt3.92

Galimova, R. M., Nabiullina, D. I., Illarioshkin, S. N., Safin, S. M., Sidorova, Y. A., Akhmadeeva, G. N., ... & Buzaev, I. V. <u>First use of MRI-guided focused ultrasound to treat patients with essential tremor in Russia</u>. Annals of Clinical and Experimental Neurology, 2022; 16(2), 5-14.

Mustafina, I. A., Ishmetov, V., Zagidullin, N., & Buzaev, I. V. TCTAP A-053 Multilayer Convolutional Neural Network Computer Vision Is Effective in Automatic OCT Image Processing. Journal of the American College of Cardiology. 2022; 79(15_Supplement), S34-S34.

Igor V Buzaev, Vladimir V Plechev, Gulchachak Khalikova, Kristina Khabirova, Irina Evgenievna Nikolaeva, Eustaquio Maria Onorato <u>Case Report: Coil</u> <u>Occlusion of Two Congenital Coronary Cameral Fistulas Connecting Right</u> <u>and Left Circumflex Arteries to the Right Ventricle: An Innovative Stent-Assisted Technique</u> Frontiers in cardiovascular medicine. 2022; 8:769235. doi: 10.3389/fcvm.2021.769235.

Eustaquio Maria Onorato, Francesco Alamanni, Manuela Muratori, Grzegorz Smolka, Wojtek Wojakowski, Piotr Pysz, Aleksejus Zorinas, Diana Zakarkaite, Hélène Eltchaninoff, Pierre-Yves Litzer, François Godart, Patrick Calvert, Christos Christou, Abdurashid Mussayev, Bindo Missiroli, Igor Buzaev, Salvatore Curello, Tullio Tesorio, Antonio Luca Bartorelli. <u>Safety, Efficacy and Long-Term Outcomes of Patients Treated with the Occlutech Paravalvular Leak</u> <u>Device for Significant Paravalvular Regurgitation</u>, Journal of clinical medicine, 2022; 11(7).

Buzaev, I. V., Khalikova, G., Plechev, V. V., & Onorato, E. M. <u>EchoNavigator®</u> technology facilitates transapical mitral paravalvular leak closure: A case report, European Heart Journal-Case Reports, 2021; 5(6), ytab190

<u>Artificial intelligence–Developments in medicine in the last two years,</u> Chronic diseases and translational medicine, 2019; 5(1), 64, Galimova, R. M., Buzaev, I. V., Ramilevich, K. A., Yuldybaev, L. K., & Shaykhulova, A. F.

Buzaev IV, Plechev VV, Nikolaeva IE, Galimova RM. <u>Artificial intelligence: Neu-</u> ral network model as the multidisciplinary team member in clinical decision support to avoid medical mistakes, Chronic Dis Transl Med. 2016; 2.

Let's transform the world together!

Thank you for your time, Yours faithfully,

for Juraev