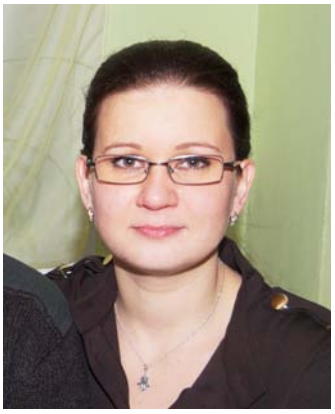
Irina S. Fadeeva, PhD

PERSONAL INFORMATION



Name	Irina S. Fadeeva
Date and place of birth	May 15, 1982 Saratov region, Russia
Home Address	35 “B”, 115, Pushchino, Moscow region, Russia, 142290
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CURRENT APPOINTMENT

Senior staff scientist	2014–present, Institute of Theoretical and Experimental Biophysics, Russian Academy of Sciences (ITEB RAS), Laboratory of pharmacological regulation of cell resistance, Pushchino, Moscow region, Russian Federation, 142290
Senior staff scientist	2008–present, ITEB RAS, Laboratory of Tissue engineering, Pushchino, Moscow region, Russian Federation, 142290
Academic Secretary of the Council on Biomedicine and Biosafety of the PRC RAS	2014-present, Pushchino Research Center of RAS (PRC RAS), Pushchino, Moscow region, Russian Federation, 142290

EDUCATION

PhD in Biology	2013, Institute of Theoretical and Experimental Biophysics, Russian Academy of Sciences (ITEB RAS), 2010-2013
MSc in Biology	2010, Puchshino State University, Puchshino, Russian Federation, 2008-2010
Specialist (“Biology” and “Chemistry”–add. spec.)	2008, Saratov State University, Saratov, Russian Federation, 2003-2008
Nurse	2001, Balakovo Medical College, Balakovo, Russian Federation, 1997-2001

RESEARCH EXPERIENCE

Assisting at surgery (qualification: the operating nurse); basic experience of anesthesia. Various types of surgical interventions in laboratory animals. Methods of investigation substances and materials biocompatibility in vitro and in vivo; cultivation of mammalian cells (immortalized cell lines and primary cell). Histology (standard and cryotomy) of tissue samples and cell spheroids; a quantitative histochemistry; immunohistochemistry. Light and confocal microscopy of histological preparations. Spectrophotometric and spectrofluorimetric analysis of biological samples.

RESEARCH INTERESTS

Biomaterials for medical application (heart valves and blood vessel grafts; osteoinductive materials);

Aseptic calcinosis of biomaterials;

Pathological calcification of extracellular matrix of blood vessels elastic type and calcinosis Mönckeberg;

Osteogenic cell dedifferentiation / atherogenic mechanisms;

Role of lipids and calcium-binding proteins in passive calcification of elastin and bone collagen / mechanisms;

Development of ways preventing calcification of biomaterials in the recipient;

Biomaterials and artificial "cytokine fields" / cellular repopulation.

GRANTS

The grants to R. Fadeev as a research project Director:

1. Grant of Russian Foundation for Basic Research (№14-04-32191), the project entitled “Role of structure and organization of the extracellular matrix disorders in the mechanism of cell-independent calcification of elastic type vessels”, 2013-2015.
2. Grant of the President of the Russian Federation (СП-6867.2013.4), the project entitled “Elucidating the mechanism of ectopic calcinosis of heart valves and blood vessels grafts and the development of biocompatible materials for cardiovascular surgery”, 2013-2015.

PUBLISHED MANUSCRIPTS

Patent

1. Fadeeva IS., Akatov VS, Muratov RM. et al.

RU 2499611 C1 “Method for Increasing Biocompatibility of Heart valves and Vessel Transplants” 27.11.2013

Book

1. Akatov V.S., Fesenko N.I., **Fadeeva I.S**. Calcification of heart valves and blood vessels transplants. Mechanisms of calcification and its prevention. 2012, Saarbrücken: AV Akademikerverlag GmbH & Co. KG (Germany), 248 pp., ISBN 978-3-659-23289-3.

Publications in Peer-Reviewed Journals

1 Prosvirin A.A., Sklyanchuk E.D., Guriev V.V., Gorshenev V.N., Teleshev A.T., Akatov V.S., **Fadeeva I.S**., Fadeev R.S., Shushkevich A.M. Physical and chemical properties and

biocompability of nanostructured porous bone implants // Tekhnologii zhivykh sistem, 2013, 8(10):68-73. (Scopus).

2. **Fadeeva I.S**., Fadeev R.S., Sachkov A.S., Britikov D.V., Akatov V.S. Direct migration of recipient cells into the matrix of heart valve and blood vessels grafts under condition with recombinant growth factors // Cytology, 2013, 55(9):658-669. (Scopus).

3. Chekanov A.V., **Fadeeva I.S**., Akatov V.S., Solovieva M.E., Vezhnina N.O., Lekishvili M.V. Quantative effect of improving osteoinductive property of a material due to application of recombinant morphogenetic bone protein rhBMP-2 // Cellular Transplantation and Tissue Engineering, 2012, VII(2):75-81. (Scopus).

4. Bobylëv AG, Okuneva AD, Bobylëva LG, Fadeeva IS, Fadeev RS, Salmov NN, Poddubnaia ZA. Study of cytotoxicity of fullerene C60 derivatives // Biophysics, 2012, 57(5):746-50. (Scopus).

5. Bobylev A.G., Kornev A.B., Bobyleva L.G., Shpagina M.D., **Fadeeva I.S**., Fadeev R.S., Deryabin D.G., Balzarini J., Troshin P.A., Podlubnaya Z.A. Fullerenolates: metallated polyhydroxylated fullerenes with potent anti-amyloid activity // Org. Biomol. Chem., 2011, 9(16):5714-5719. (WOS). PMID: 21713297.

6. Muratov Ravil, Britikov Dmitriy, Sachkov Anton, Akatov Vladimir, Soloviev Valeriy, **Fadeeva Irina**, Bockeria Leo. New approach to reduce allograft tissue immunogenicity. experimental data // Interact. Cardiovasc. Thorac. Surg., 2010, 10(3):408-412. (Scopus). PMID: 20040478.

7. Akatov V.S., **Fadeeva I.S**., Chekanov A.V., Solov'ev V.V. The role of recipient cells in the mechanism of pathological calcification of heart valve and vascular transplants // Biofizika, 2010, 55(5):937-42. (Scopus). PMID: 21033364

8. Akatov V.S. Fesenko N.I., Soloviev V.V., Fadeeva I.S. Muratov R.M., Chekanov A.V., Sachkov A.S., Britikov D.V. Suppression of calcification of heart valve transplants by their devitalization // Cellular Transplantation and Tissue Engineering, 2010, V(1):41-46. (Scopus).

9. Akatov V.S., Muratov R.M., **Fadeeva I.S**., Sachkov A.S., Britikov D.V., Fesenko N.I., Soloviev V.V., Chekanov A.V. The study of biocompatibility of heart valve transplants devitalized by anticalcinosis treatment // Cellular Transplantation and Tissue Engineering, 2010, V(2):36-41. (Scopus).