

Galina Florova
August 2025 - August 2026
Professor
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CONTACT INFORMATION

403.3 Biomedical Research Building, UTHSCT
11937 US HWY 271
Tyler, Texas 75708

DEGREES

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| 1992 | Ph.D., Biology (Genetics), Institute for Genetics and Selection of Industrial Microorganisms, Moscow, Russian Federation
Dissertation: Interconnection between resistance to tylosin and production of tylosin by <i>Streptomyces fradiae</i> strains. |
| 1981 | M.Sc., Microbial Engineering , Moscow Technological Institute of Food Industry, Moscow, Russian Federation
Dissertation: Isolation and partial purification of <i>Salmonella typhimurium</i> enterotoxin. |

POST-GRADUATE TRAINING

Post-Doctorate, Virginia Commonwealth University, School of Pharmacy, Medicinal Chemistry, Richmond, Virginia, United States, September 1997, September 1999
Post-Doctorate, University of Maryland at Baltimore, Biochemistry, Baltimore, Maryland, United States, May 1995, September 1997

ACADEMIC APPOINTMENTS

Professor, Department of Cellular & Molecular Biology, UT Tyler School of Medicine, Tyler, Texas, Tenure (if applicable): Not Tenured, 2023-09-01
Research Assistant Professor, School of Pharmacy, Department of Medicinal Chemistry, Virginia Commonwealth University, Richmond, Virginia, Tenure (if applicable): Not Tenured, 1999-09-01, 2005-08-01
Research Assistant Professor, Department of Chemistry, Portland State University, Portland, Oregon, Tenure (if applicable): Not Applicable, 2005-08-01, 2009-04-30
Instructor, Department of Biomedical Research, University of Texas Health Science center at Tyler, Tyler, Texas, Tenure (if applicable): Not Tenured, 2009-03-01, 2012-08-31
Assistant Professor, Department of Cellular and Molecular Biology, University of Texas Health Science center at Tyler, Tyler, Texas, Tenure (if applicable): Not Applicable, 2012-09-01, 2017-08-31
Associate Professor, Department of Cellular and Molecular Biology, University of Texas Health Science Center at Tyler, Tyler, Texas, Tenure (if applicable): Not Tenured, 2017-09-01, 2023-08-31

OTHER ADMINISTRATIVE/LEADERSHIP POSITIONS AND PROFESSIONAL EXPERIENCES

October 2025, End Date: October 2025, Session Chair Texas American Society for Microbiology (ASM) Fall 2025 Branch meeting , Texas American Society for Microbiology (ASM), Tyler, Texas

September 2021, End Date: Ongoing, Institutional Biosafety Committee , Chair, University of Texas at Tyler, University of Texas Health Science Center, Tyler, Texas

HONORS AND AWARDS

August 2025

DICE project, UT SOM, Our project has been selected as one of the top three applications for the 2025–2026 DICE Project Grants.
Grant Award: \$20,000

PROFESSIONAL MEMBERSHIPS

International

April 2024 - Ongoing

International Society on Thrombosis and Haemostasis (ISTH)[Responsibility: Member]

March 2015 - Ongoing

American Thoracic Society [Responsibility: Member]

SERVICE ON COMMITTEES

UTT

September 2020 - Ongoing

Institutional Biosafety Committee [Responsibility: Chair]

September 2017 - Ongoing

Infectious Organisms Research Review Committee (IORRC) [Responsibility: Member]

UTTSOM

September 2024 - Ongoing

SOM Admission Committee [Responsibility: Member]

EDITORIAL/BOARD APPOINTMENTS AND RESPONSIBILITIES

April 2023 - Ongoing

Diabetology & Metabolic Syndrome

TEACHING ACTIVITIES

Title	Setting	Level of Learner	Number of Learners	Contact Hours	Type of Learning Activity	Teaching Methods	Start Month	End Month
UTHSCT MBP BIOT 6332	Course, Other	Doctoral/Master	1		Series	One-to-one, Laboratory/Research Preceptor, Other	January 2017	May 2026
UTHSCT MBP BIOT 6331	Course, Other	Doctoral/Master	1		Series	One-to-one, Laboratory/Research Preceptor, Other	October 2016	May 2026
BIOT5221 lecture and lab	Course, Lab	Doctoral/Master	10		Single Session	Lecture, Laboratory	January 2016	Ongoing

ASSESSMENT METHODS

Context of Assessment	Assessment Method	Your Role	Level of Learners	Number of Learners	Start Month	End Month
UTHSCT MBP BIOT 6332/ Thesis Writing	Projects, Group Projects and Dissertations	Developer, Thesis Mentor	Doctoral/Master	5	January 2016	May 2026

ADVISING/MENTORING/COACHING

Name of Individual	Level of Training	Purpose/Objective	Mentoring/Advising Activities	Start Month	End Month
Rylie Garner	Undergraduate	Career advancement of individual	Formal, Research mentor/advisor/coach	August 2026	Ongoing
Liza Bailey	Undergraduate	Career advancement of individual	Formal, Research mentor/advisor/coach	June 2025	September 2025
Merina Basnet	Graduate	Scholarly work	Formal, Research mentor/advisor/coach, Educational mentor/advisor/coach	December 2024	May 2026
Oluwaseyi Akiode	Undergraduate	Career advancement of individual	Formal, Research mentor/advisor/coach	August 2023	Ongoing
Jincy Jacob	Graduate	Career advancement of individual	Formal, Research mentor/advisor/coach	January 2022	Ongoing
Christian J De Vera	Graduate	Career advancement of individual	Formal, Research mentor/advisor/coach	May 2020	July 2026

GRANTS

Funded - In Progress

Federal

TREM-1 therapy for the treatment of empyema Funded by NIH/NHLBI (September 15, 2025), awarded September 10, 2025 **\$151,573.00**), Funded - In Progress, August 2025, CoInvestigator Galina Florova (6%) with PI Andrey Komissarov (6%) [Type of Grant: Research]

Concurrent targeting of inflammation and the inhibition of the fibrinolytic system to increase the efficacy of empyema treatment Funded by NIH/NHLBI (July 15, 2025), awarded July 9, 2025 (**\$999,170.00**), Funded - In Progress, July 2025, CoInvestigator Galina Florova (15%) with PI Andrey Komissarov (30%) [Type of Grant: Research]

Enhanced Delivery of Thrombolytic Carriers for Empyema Funded by NIH/NHLBI (July 15, 2021), awarded July 15, 2021 **\$2,488,604.00**), Funded - In Progress, June 2021, PI Andrey Komissarov (30%) with CoPI Melvin Klegerman, CoInvestigator Galina Florova (20%) [Type of Grant: Research]

Delivery of PAI-1-targeted intrapleural fibrinolytic therapy for empyema Funded by NIH/NHLBI (April 1, 2017 - April 1, 2026), awarded April 1, 2017 (**\$3,818,486.00**), Funded - In Progress, January 2017, CoPI Galina Florova (30%) with PI Andrey Komissarov (30%), CoPI Steven Idell (30%) [Type of Grant: Research]

University

Identifying novel molecular and cellular mechanisms governing the intrapleural fibrinolysis to further increase the efficacy of fibrinolytic treatment for empyema. Funded by UT Tyler SOM (September 1, 2025 - August 31, 2026), awarded August 1, 2025 (**\$20,000.00**), Funded - In Progress, August 2025, PI Galina Florova with CoPI Andrey Komissarov [Type of Grant: Research]

Submitted for Review

Federal

Delivery of PAI-1-targeted intrapleural fibrinolytic therapy for empyema Funded by NIH/NHLBI (December 31, 2026) **\$2,451,069.00**), Submitted for Review, February 2026, CoPI Galina Florova (30%) with PI Andrey Komissarov (30%) [Type of Grant: Research]

Enhanced Delivery of Thrombolytic Carriers for Empyema Funded by NIH/NHLBI (November 1, 2026) **\$2,014,960.00**), Submitted for Review, November 2025, CoInvestigator Galina Florova (19%) with PI Andrey Komissarov (25%) [Type of Grant: Research]

SCHOLARLY CONTRIBUTIONS AND CREATIVE PRODUCTIONS

Journal Article

Completed/Published

Peer-reviewed

1. Ranjpour, M., Frierson, B., Emerine, R. L. L., De Vera, C. J. J., Sarva, K., Klegerman, M. E. E., McPherson, D. D. D., Idell, S., Florova, G., & Komissarov, A. A. A. (2026). Optimized TELIP, an Echogenic Liposomal Nano-Carrier Loaded with Alteplase for Preclinical Studies. *Pharmaceutics*, 18(6).
2. De Vera, C. J., Jacob, J., Christudas, S., Sarva, K., Bailey, E. V., Komissarov, A. A., Azghani, A. O., Idell, S., & Florova, G. (2025). Utility of chest ultrasonography in quantifying clot and pleural effusion volume in preclinical models of pleural disease. *Biomedical Sciences Instrumentation*, 61(2), 287–299.
3. Komissarov, A. A., De Vera, C. J., Girard, R. A., Sarva, K., Emerine, R. L., Azghani, A. O., Christudas, S., Jacob, J., Chamiso, M., Morris, D., Karandashova, S., Declerck, P. J., Idell, S., & Florova, G. (2025). Inhibiting the inhibitor: would targeting PAI-1 result in a low-dose, well-tolerated treatment of empyema?. *Biomedical Sciences Instrumentation*, 61(2), 336–353.

Oral Presentations, Symposia, Seminars

Completed/Published

Peer-reviewed

1. Komissarov, A. A., De Vera, C. J., Emerine, R. L., Jacob, J., Christudas, S., Krishna, S., Azghani, A. O., Ranjpour, M., Frierson, B., Peng, T., Huang, S., McPherson, D. D., Idell, S., Klegerman, M. E., & Florova, G. (2026). Sonofibrinolysis: Transthoracic Ultrasound Increases the Efficacy of Tissue-Type but not Urokinase Plasminogen Activator in Rabbit Models of Acute and Advanced-Stage Empyema . *International Society for Thrombosis and Haemostasis Congress*.
2. Florova, G., Akiode, O., Emerine, R. L., & Komissarov, A. A. (2026). GLP-friendly linear peptides protect fibrinolysins from plasminogen activator inhibitor 1 (PAI-1) increasing the efficacy of sctPA in a rabbit model of acute empyema. *Proteases, Inhibitors and Therapeutics. Gordon Research Conference*
3. Komissarov, A. A., De Vera, C. J., Emerine, R. L., Jacob, J., Christudas, S., Krishna, S., Azghani, A. O., Ranjpour, M., Frierson, B., McPherson, D. D., Idell, S., Klegerman, M. E., & Florova, G. (2025). Imaging Ultrasonography Potentiates Intrapleural Fibrinolysis in a Rabbit Model of Empyema. *The 41st Southern Biomedical Engineering Conference (SBEC 2025)*.
4. Jacob, J., De Vera, C. J., Azghani, A. O., Christudas, S., Krishna, S., Sigalov, A. B., Florova, G., & Komissarov, A. A. (2025). TREM-1: An Amplifier of Pleural Inflammation in a Rabbit Model of Empyema. *The 41st Southern Biomedical Engineering Conference (SBEC 2025)*
5. Akiode, O. A., Emerine, R. L., Jacob, J., Florova, G., & Komissarov, A. A. (2025). Fibrinolytic Activity Assay, FPA96F, for Rapid In Vitro and Ex Vivo Evaluation of Linear Peptides Protecting Fibrinolysins from Plasminogen Activator Inhibitor (PAI-1) . *The 41st Southern Biomedical Engineering Conference (SBEC 2025)*
6. Florova, G., De Vera, C. J., Jacob, J., Krishna, S., Christudas, S., Azghani, A. O., Sigalov, A. B., & Komissarov, A. A. (2025). Streptococcus pneumoniae-Induced Rabbit Model of Empyema Reveals the Contribution of TREM-1 in Pleural Inflammation. *ASM Texas Branch Meeting*.
7. Christudas, S., Jacob, J., Sarva, K., Florova, G., De Vera, C. J., Declerck, P. J., & Komissarov, A. A. (2025). Mechanisms Underlying PAI-1 Targeted Fibrinolytic Therapy in a Rabbit Model of Streptococcus pneumoniae-Induced Empyema. . *ASM Texas Branch Meeting*.
8. De Vera, C. J., Florova, G., Azghani, A. O., Christudas, S., Akiode, O., Jacob, J., Sarva, K., Komissarov, A. A., & Idell, S. (2025). Understanding the Role of Infection in Hemothorax Pathology and Treatment: Presentation of a Noninfectious vs Infectious Rabbit Model of Retained Hemothorax. *ASM Texas Branch Meeting*.
9. Komissarov, A. A., Azghani, A. O., De Vera, C. J., Christudas, S., Jacob, J., Akiode, O., Emerine, R. L., Sarva, K., Idell, S., Karandashova, S., Idell, S., Sigalov, A. B., & Florova, G. (2025). Validation of Plasminogen Activator Inhibitor 1 (PAI-1) as a Molecular Target in Three Rabbit Models of Pleural Injury *ASM Texas Branch Meeting*.

Posters

Completed/Published

Peer-reviewed

1. Florova, G., De Vera, C. J., Jacob, J., Christudas, S., Krishna, S., Swathi, K., Sigalov, A. B., & Komissarov, A. A. (2026). Contribution of triggering receptor expressed on myeloid cells-1 (TREM-1) to the inflammation and fibrosis in Streptococcus pneumoniae -induced model of empyema in rabbits. . *International Society for Thrombosis and Haemostasis Congress*.
2. Ranjpour, M., Frierson, B., Emerine, R. L., De Vera, C. J., Jacob, J., Krishna, S., Klegerman, M. E., McPherson, D. D., Idell, S., Florova, G., & Komissarov, A. A. (2026). Optimized TELIP: a Stable Echogenic Liposomal Carrier Loaded with sctPA for Preclinical Studies . *Proteases, Inhibitors and Therapeutics. Gordon Research Conference*.
3. Karandashova, S., Emerine, R. L., Girard, R. A., De Vera, C. J., Florova, G., & Komissarov, A. A. (2026). A fibrinolytic activity assay to study molecular interactions in fibrinolysis in vitro and ex vivo. *Proteases, Inhibitors and Therapeutics. Gordon Research Conference*
4. Komissarov, A. A., De Vera, C. J., Emerine, R. L., Jacob, J., Christudas, S., Krishna, S., Azghani, A. O., Ranjpour, M., Frierson, B., McPherson, D. D., Idell, S., Klegerman, M. E., & Florova, G. (2025). Transthoracic ultrasound increases efficacy of tissue-type plasminogen activator in rabbit models of acute and advanced-stage empyema. . *Lung Development, Injury and Repair. Gordon Research Conference*
5. Florova, G., Christudas, S., Girard, R. A., De Vera, C. J., Jacob, J., Krishna, S., Emerine, R. L., Chamiso, M. B., Morris, D., Karandashova, S. D., Azghani, A. O., Declerck, P. J., Idell, S., & Komissarov, A. A. (2025). Targeting plasminogen activator inhibitor 1 with monoclonal antibodies and a fibrinolysin in a rabbit model of empyema: molecular mechanisms addressing fibrosis and pleural thickening. *Lung Development, Injury and Repair. Gordon Research Conference*

Patent and Technology Transfer

Completed/Published

Non-peer Reviewed

1. Florova, G., & Komissarov, A. A. (2025).
PEPTIDE INHIBITORS OF PAI-1 AND THEIR USE IN TREATING EMPYEMA. *Patent Application, USA 63/948,955*.
2. Florova, G., Komissarov, A. A., Idell, S., De Vera, C. J., McPherson, D. D., Klegerman, M. M., Huang, S., & Frierson, B. (2025). TREATMENT OF EMPYEMA WITH FIBRINOLYTIC THERAPY AND TRANSTHORACIC ULTRASOUND. *Patent Application, USA No. 63/824,418*.

PROFESSIONAL DEVELOPMENT

July 2026 - July 2026

Attended an ISTH meeting , presented data International Society on Thrombosis and Haemostasis, Paris, France, Description: Disseminated the data of the projects that were supported by NHLBI/NIH among the international community of medical professionals and researchers. Funded by faculty development fund.

June 2026 - June 2026

Attended an GRC meeting, presented data Proteases, Inhibitors and Therapeutics. Gordon Research Conference, Lucca, Italy, Description: Presented data collected during the projects that were supported by NHLBI/NIH among the international community of researchers.
Invited talk, funded by faculty development fund.