

Andrey A Komissarov
August 2025 - August 2026
Professor
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CONTACT INFORMATION

404.3 Biomedical Research Building
11937 US HWY 271
Tyler, Texas 75708

DEGREES

1988	Ph.D., Chemistry of Natural Compounds, Moscow State University, Moscow, Russian Federation Dissertation: Localization of functional amino acid residues in the active site of inorganic pyrophosphatase
1980	M.Sc., Chemistry, Moscow State University, Moscow, Russian Federation Dissertation: Phosphorylation of inorganic pyrophosphatase with phosphate

POST-GRADUATE TRAINING

Post-Doctorate, University of Missouri, Biochemistry, Columbia, Missouri, United States, February 1995, February 1997

ACADEMIC APPOINTMENTS

Assistant Professor, Department of Cellular and Molecular Biology, UT Health Science Center at Tyler, Tyler, Texas, Tenure (if applicable): Not Tenured, 2007-09-10, 2011-08-31

Associate Professor, Department of Cellular and Molecular Biology, UT Health Science Center at Tyler, Tyler, Texas, Tenure (if applicable): Not Tenured, 2011-09-01, 2017-08-31

Professor, Department of Cellular and Molecular Biology, UT Health Science Center at Tyler, Tyler, Texas, Tenure (if applicable): Not Tenured, 2017-09-01, 2019-08-31

Professor, Department of Cellular and Molecular Biology, UT Tyler School of Medicine, Tyler, Texas, Tenure (if applicable): Tenured, 2019-09-01, 2025-08-31

Professor, Department of Cellular & Molecular Biology, UT Tyler School of Medicine, Tyler, Texas, Tenure (if applicable): Tenured, 2025-09-01, 2032-08-31

OTHER ADMINISTRATIVE/LEADERSHIP POSITIONS AND PROFESSIONAL EXPERIENCES

September 2022, End Date: Ongoing, Research Enterprise Council, member, UTSOM, Tyler, Texas

September 2022, End Date: September 2023, Promotions Committee, member, UTSOM, Tyler, Texas

September 2021, End Date: Ongoing, Research Infrastructure Committee, Chair, UTSOM, Tyler, Texas

PROFESSIONAL MEMBERSHIPS

International

April 2024 - Ongoing

International Society on Thrombosis and Haemostasis [Responsibility: Member]

April 2009 - Ongoing

American Thoracic Society [Responsibility: Member]

SERVICE ON COMMITTEES

UTT SOM

October 2024 - Ongoing

Research Enterprise Council IP/Entrepreneurship Committee [Responsibility: Member]

Research Enterprise Council Infrastructure/Repository Committee [Responsibility: Member]

August 2024 - Ongoing

Faculty Executive Council [Responsibility: Alternative Member]

September 2022 - Ongoing

Research Enterprise Council [Responsibility: Member]

September 2018 - Ongoing

BMR and now Research Enterprise Council Capital Equipment Committee [Responsibility: Chair]

TEACHING ACTIVITIES

Title	Setting	Level of Learner	Number of Learners	Contact Hours	Type of Learning Activity	Teaching Methods	Start Month	End Month
Thesis Writing	Course	Doctoral/Master	1		Series	One-to-one, Laboratory/Research Preceptor, Other	September 2015	Ongoing
Thesis Research	Course	Doctoral/Master	1		Series	One-to-one, Laboratory/Research Preceptor, Other	April 2015	Ongoing
Adv. Techniques in Protein Chemistry	Course, Lab	Doctoral/Master	10		Series	Lecture, Laboratory	January 2014	Ongoing

GRANTS

Funded - In Progress

Federal

TREM-1 therapy for the treatment of empyema, Funded by NIH/NHLBI (January 1, 2025 - December 31, 2025) **\$427,994.00**, Funded - In Progress, September 2025, PI Alexander Sigalov with CoInvestigator Andrey Komissarov [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 (April 1, 2025 - March 31, 2028) (**\$1,314,043.00**), Funded - In Progress, July 2025, PI Andrey Komissarov with CoPI Alexander Sigalov [Type of Grant: Research]

Delivery of PAI-1-Targeted Intrapleural Fibrinolytic Therapy for Empyema, Funded by NIH/NHLBI (April 1, 2017 - March 31, 2026), awarded April 1, 2017 (**\$3,818,486.00**), Funded - In Progress, February 2025, PI Andrey Komissarov with Multiple PI Galina Florova, Multiple PI Steven Idell [Type of Grant: Research]

Enhanced Delivery of Thrombolytic Carriers for Empyema Funded by NIH/NHLBI (July 1, 2021 - June 30, 2025), awarded July 1, 2021 **\$2,488,604.00**, Funded - In Progress, April 2024, PI Andrey Komissarov with Multiple PI Melvin Klegerman, CoInvestigator Galina Florova [Type of Grant: Research]

SCHOLARLY CONTRIBUTIONS AND CREATIVE PRODUCTIONS

Journal Article

Completed/Published

Peer-reviewed

1. 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.
2. Komissarov, A. A., De Vera, C. J., Girard, R. A., Sarva, K., Emerine, R. L., Azghani, A. O., Christudas, S., Jacob, J., Chamiso, M., 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.

Abstract, Case Report

In Press

Peer-reviewed

1. Jacob, J., DeVera, C. J., Sarva, K., Azghani, A. O., Christudas, S., Sigalov, A. B., Florova, G., & Komissarov, A. A. (2025). Triggering Receptor Expressed in Myeloid Cell-1 (TREM-1) Contributes to Pleural Inflammation in a Rabbit Model of Empyema. *Am J Respir Crit Care Med*.
2. Frierson, B., Peng, T., Huang, S., Emerine, R., Jacob, J., Christudas, S., DeVera, C. J., Sarva, K., Idell, S., Florova, G., Komissarov, A. A., McPherson, D. D., & Klegerman, M. E. (2025). Production and Characterization of Double-Membrane Echogenic Liposomal Carrier-Loaded Alteplase. *Am J Respir Crit Care Med*.
3. Christudas, S., Jacob, J., Sarva, K., DeVera, C. J., Florova, G., Declerck, P. J., & Komissarov, A. A. (2025). Novel Mechanisms That Contributing to The Efficacy of Fibrinolytic Therapy of Empyema in a Rabbit Model. *Am J Respir Crit Care Med*.

Accepted

Peer-reviewed

4. Komissarov, A. A., De Vera, C. J., Emerine, R., Jacob, J., Christudas, S., Sarva, K., Azghani, A. O., Ranjpour, M., Frierson, B., Peng, T., Huang, S., 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. *Gordon Research Conference*.
5. Florova, G., De Vera, C. J., Christudas, S., Girard, R. A., Jacob, J., Sarva, K., Emerine, R. L., Chamiso, M. B., Morris, D., Karandashova, S., Declerck, P. J.,

- Azghani, A. O., 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. . *Gordon Research Conference*
6. Akiode, O., Emerine, R., Jacob, J., Florova, G., & Komissarov, A. A. (2025). Novel GLP-Friendly Peptides Protect Fibrinolysins from Plasminogen Activator Inhibitor (PAI-1) *in vitro and ex vivo*. *Am J Respir Crit Care Med*.

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

May 2009 - Ongoing

Attending ATS International Meetings , American Thoracic Society, New York, NY, Description: More than 70 poster presentations, almost 40 since 2019.

PROFESSIONAL COMMUNITY SERVICE

September 2007 - Ongoing

UTHSCT/UT Tyler, Photography:

“Freezing Sparkles of Our Precious Time” ©.

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