

There are no translations available.



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Function of the laboratory:

The laboratory of microscopy is a core cell imaging facility of the Kazan Institute of Biochemistry and Biophysics. It is equipped with high-resolution light and electron microscopes. Purpose of laboratory is to provide state of the art equipment and methods to visualize ultrastructure of plant, bacterial and animal cells, as well as to create new protocols for investigation of living cells.

Methods:

Electron microscopy, immunohistochemistry (paraffin or epoxy resin embedded slices), laser confocal scanning microscopy of fixed or live tissue (Emission fingerprinting, 3-D imaging, Ion imaging, FRAP), light microscopy. Subjects of investigation: mycoplasma, algae, plants in vivo and in vitro, neuromuscular preparations of poikilotherm and homeotherm animals.

Equipments:

Electron microscope Jeol 1200 SX (Japan), Laser confocal scanning microscope LSM 510 META (Carl Zeiss, Germany), light microscopes NU 2 (Carl Zeiss) and "Micromed", microtomes LKB (Sweden) and Ultracut E (Reichert Jung, Germany)

Selected publications:

- Salnikov V., Grimson M., Seagull R., Haigler C. The localization of sucrose synthase and callose in freeze substitution secondary- wall stage cotton fibers //Protoplasma, 2003, Jun; 221(3-4): P. 175-184.
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- Gorshkova T., Ageeva M., Chemikosova S., Salnikov V. Tissue-specific processes during cell wall formation in flax fiber // Plant Biosystems. 2005, V.139, N1, P. 88-92.

- Salnikov V.V., Lukyanenko Y.O., Frederick C.A., Lederer W.J., Lukyanenko V.I. Probing the Outer Mitochondrial Membrane in Cardiac Mitochondria with Nanoparticles // *Biophys J.* V. 92(3): 1058-71.
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- Сальников В.В., Мишагина Е.А., Козловская И.Б., Никольский Е.Е., Григорьев А.И., Исламов А.А. Иммуногистохимическое подтверждение локализации рибосомного белка L26 в терминальных разветвлениях моторного аксона крысы // *ДАН*, 2009, том 427, № 2, С. 1-3.
- Salnikov V.V., Lukyanenko Y.O., Lederer W.J., Lukyanenko V.I. Distribution of ryanodine receptors in rat ventricular myocytes. // *J Muscle Res Cell Motil*, 2009, V. 30: 161–170.
- Горшков В.Ю., Петрова О.Е., Мухаметшина Н.Е., Агеева М.В., Мулюкин А.Л., Гоголев Ю.В. Образование «некультивируемых» покоящихся форм фитопатогенной энтеробактерии *Erwinia carotovora* // *Микробиология*, 2009, Т 78, № 5, С. 647–655.
- Горшкова Т.А., Гурьянов О.П., Микшина П.В., Ибрагимова Н.Н., Мокшина Н.Е., Сальников В.В., Агеева М.В., Аменицкий С.И., Чернова Т.Е., Чемикосова С.Б. Особый тип вторичной клеточной стенки, формируемый растительными волокнами // *Физиология растений*, 2010, Т.57, №3, С.346-360.
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