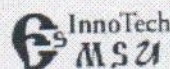




FUND FOR INFRASTRUCTURE
AND EDUCATIONAL
PROGRAMS



RESEARCH CENTER
OF BIOTECHNOLOGY



12th INTERNATIONAL CONFERENCE
BIOCATALYSIS-2019:
FUNDAMENTALS & APPLICATIONS

**SCIENTIFIC
PROGRAM**

June, 24-28, 2019
St. Petersburg - Valaam - Kizhi
Russian Federation

- 9.10 Tishkov Vladimir, Russian Federation
New biocatalysts for processes of fine organic and chiral synthesis with oxidoreductases
- 9.40 Švedas Vytautas, Russian Federation
Knowledge-based modulation of enzyme functional properties
- 10.10 Egorov Aleksey, Russian Federation
Beta-lactamases - drivers of bacterial antibiotic resistance

Session 1.2. Fundamental Biocatalysis. Structural aspects

Chair persons: Prof. Hayashi H., Dr. Zvereva M.

- 11.00 Phillips Robert, United States
Structure and mechanism of D-ornithine/D-lysine decarboxylase, a stereoinverting Fold-III decarboxylase
- 11.20 Rakitina Tatyana, Russian Federation
Application of X-ray crystallography, comparative modeling and molecular dynamics to investigation of structural determinants of enzymatic activation and substrate specificity.
- 11.40 Boyko Konstantin, Russian Federation
3D structure of the natural tetrameric form of human butyrylcholinesterase as revealed by cryoEM, MD and SAXS
- 12.00 Demidkina Tatyana, Russian Federation
Sulfoxides of sulfur-containing amino acids - suicidal substrates of methionine gamma-lyase as antimicrobial and antimycotic prodrugs.
- 12.20 Bezsudnova Ekaterina, Russian Federation
Effects of amino acid substitutions in the characteristic sequence motifs on the profile of substrate specificity of PLP fold type IV transaminases
- 12.40 Tishchenko Svetlana, Russian Federation
Investigation of T2 channel of two-domain laccases

Hall 2

Session 2.2. Applied Biocatalysis

Chair persons: Prof. Tishkov V., Dr. Khrenova M.

- 11.00 Littlechild-Bond Jennifer, UK
Thermophilic Enzymes for Industrial Biocatalysis
- 11.30 Gusakov Aleksander, Russian Federation
Lytic polysaccharide monooxygenases: structure, mechanism and function
- 11.55 Batyrova Khorcheska, Canada
Novel enzymes for biosynthesis and biotransformation of adipic acid
- 12.15 You Delin, China
Baeyer-Villiger Monooxygenases XanO4 Catalyzes Cyclic Ether Formation
- 12.35 Atroshenko Denis, Russian Federation
Multipoint mutants of TvDAAO with improved catalytic properties and stability

Hall 3

Session 3.2. Analytics 2

Chair persons: Prof. Eremin S., Dr. Trudil D.

- 11.00 Shumyantseva Viktoria, Russian Federation
Cytochrome P450 electrocatalytic systems for drug metabolism modeling, drug discovery and drug-drug interaction studies
- 11.20 Plekhanova Yulia, Russian Federation
Polyelectrolyte microcapsules with enzymes for use in analytical systems
- 11.40 Suntsova Anastasia, Russian Federation
New approach to identification of microorganisms with Fourier-transformed infra-red spectroscopy
- 12.00 Yurina Lubov, Russian Federation
Development of a diagnostic approach based on the detection and quantification of sites of post-translational modifications using the HPLC-MS / MS method in the protein components of blood plasma