## The 89th Annual Meeting of the Japanese Biochemical Society Presentation Topics

Classifications	Topics
	1) Membrane receptors and ion channels
00: Cellular Response	2) Extracellular signaling molecules (Bioactive substances, hormones, etc,)
	3) Biological interactions (Symbiotic and pathogenic microorganisms, insects, etc.)
	4) Autophagy
	5) Cell death (Apoptosis etc.)
	6) Stress response
	7) Environmental biology 8) Classification 0 in general
	1) Glycoproteins
01: Glycobiology	2) Glycolipids
	3) Proteoglycans
	Lectins     Carbohydrate-related enzymes
	6) Classification 1 in general
02: Lipid Biology	1) Lipid metabolome
	2) Sphingophospholipids
	Glycerophospholipids     Bioactive lipids
	5) Steroids, cholesterol and lipoproteins
	6) Fatty acids, glycerides and neutral lipids
	Classification 2 in general     Structural biology, prediction of function and drug design
03: Proteins	Protein modification
	3) Protein folding, quality control and chaperone
	4) Proteolysis
	Classification 3 in general     Catalytic mechanism, regulatory mechanism and inhibitory mechanism
04: Enzymes and Metabolism	Enzymes (Oxidoreductases and related enzymes)
	3) Enzymes (Metalloenzymes and heme enzymes)
	4) Enzymes (Hydrolytic enzymes)
	5) Coenzymes, vitamins and biofactors 6) Metabolism and xenobiotic metabolism
	7) Classification 4 in general
05: Redox and Energy Conversion 06: Cell Structure and Function	1) ROS generation, oxidative stress and redox regulation
	2) Ion transport and bioenergetics
	Si Electron transport chain     Classification 5 in general
	Membrane transporter
	2) Adhesion, motility, extracellular matrix and cytoskeleton
	3) Structure, function and biogenesis of organelles
	Intracellular traffic systems (Vesicular transport etc.)     Classification 6 in general
	1) Nuclear receptors
07: Signal Transduction	2) Protein kinases and phosphatases
	3) G proteins  4) Intropollular signaling malacular
	Intracellular signaling molecules     Classification 7 in general
08: Cell Cycle, Development	Cell cycle, cell division and polarity
	2) Early development, Morphogenesis and growth control
	Stem cell and cell differentiation     Classification 8 in general
09: Genetic Information and Expression	Structure and function of chromosome and nucleus
	2) DNA replication, recombination, mutation and repair
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	4) Chromatin and epigenetics 5) RNA processing, transport, translation and degradation (including non-coding RNA)
	6) Classification 9 in general
	1) Ome research and analysis technology
	2) Single molecule biochemistry, single cell biochemistry, imaging and biosensor
10: Frontier Sciences and	Systems biology     Chronobiology, sleep, photoperiodism and rhythm
Technology	5) Drug discovery, bioactive compounds and food science
	6) Evolution and biodiversity
	Genetic, nucleic acid, glycotechnology and cell engineering     Solassification 10 in general
	1) Cancer
	Aging and life style-related diseases
11. Dialage of Division	3) Endocrinological and metabolic diseases
11: Biology of Diseases	4) Hereditary diseases 5) Diseases in general
	6) Molecular diagnosis, laboratory medicine, etc
	7) Classification 11 in general
	1) Development of neural networks
	<ol> <li>Synaptic transmission and plasticity, receptors and channels and the sensory system</li> <li>Substance metabolism and signal transduction</li> </ol>
12: Neuroscience	Behavior, cognition and biological rhythms
	5) Nervous and mental disorders
	6) Classification 12 in general
	Cellular immunology and immune regulation     Box defense and infectious diseases
13: Immunity and Infection	3) Inflammation
	4) Immunopathy
14: Medical Inovation	5) Classification 13 in general
	Regenerative medicine (Stem Cells and iPS cells)     Regenerative medicine (Tisseu engineering and matrix engineering)
	3) Biochemistry in neuronal degenerative diseases
	4) Biochemistry in chronic inflammation
	5) Chemical biology, screening, and drug development
	Nucleic acid-, protein- and antibody-engineering and drug development     Information science and drug development
	58 Classification 14 in general
	1) Plant ome research
	2) Plant organelle, cell and organogenesis
15: Plant Biology	3) Environmental response and photosynthes
15: Plant Biology	