PRE-HEALTH PREP with jove

2020

USE JOVE VIDEOS TO AID IN PRE-HEALTH STUDYING

The educational needs of Pre-Health students can be vast and varied and the wealth of JoVE content can assist in meeting their studying requirements. JoVE supports science education by making and publishing videos of scientific experiments from top laboratories around the globe.

This curated playlist organizes relevant video content by subject area and course level; allowing faculty, pre-health advisors, and students to pick and choose the videos that are needed in a variety of classes and education levels.

You can watch any videos from sections that your institution's library is subscribed to (to check, which of them are available please click HERE). You can also request a personal trial for unsubscribed content HERE.

To use these videos Off-Campus, you need to create an account on JoVE.com with your school email address (CLICK HERE). This also will give you access to all the JoVE content your library subscribes to.

JoVE Science Education Videos

BASIC BIOLOGY

Biological and Biochemical Foundations of Living Systems

- Restriction Enzyme Digests
- DNA Ligation Reactions
- An Introduction to Transfection
- Plasmid Purification
- Bacterial Transformation: Electroporation
- DNA Gel Electrophoresis
- PCR: The Polymerase Chain Reaction

NEUROSCIENCE

Chemical and Physical Foundation s of Biological Systems

- An Introduction to Neurophysiology
- Patch Clamp Electrophysiology
- Calcium Imaging in Neurons
- An Introduction to Neuroanatomy
- An Introduction to Behavioral Neuroscience
- An Introduction to Cellular and Molecular Neuroscience
- An Introduction to Developmental Neurobiology

DEVELOPMENTAL BIOLOGY

Biological and Biochemical Foundations of Living Systems

- An Introduction to Developmental Genetics
- Genetic Engineering of Model Organisms
- Explant Culture for Developmental Studies
- An Introduction to Stem Cell Biology
- Induced Pluripotency
- An Introduction to Organogenesis
- An Introduction to Aging and Regeneration
- Tissue Regeneration with Somatic Stem Cells

GENETICS

Biological and Biochemical Foundations of Living Systems

- An Overview of Genetic Analysis
- Genetic Crosses
- Genetic Screens
- An Overview of Genetics and Disease
- SNP Genotyping
- Cytogenetics
- An Overview of Gene Expression
- An Overview of Epigenetics
- DNA Methylation Analysis
- Chromatin Immunoprecipitation
- Recombineering and Gene Targeting

CELL BIOLOGY

Biological and Biochemical Foundations of Living Systems

- An Introduction to Cell Division
- Cell Cycle Analysis
- An Introduction to Cell Motility and Migration
- An Introduction to Endocytosis and Exocytosis
- An Introduction to Cell Metabolism
- The ATP Bioluminescence Assay
- Detecting Reactive Oxygen Species
- An Introduction to Cell Death
- The TUNEL Assay

GENERAL CHEMISTRY

Chemical and Physical Foundations of Biological Systems

- Solutions and Concentrations
- Determining the Density of a Solid and Liquid
- Determining the Empirical Formula
- Determining the Solubility Rules of Ionic Compounds
- Using a pH Meter
- Introduction to Titration
- Ideal Gas Law
- Spectrophotometric Determination of an Equilibrium Constant
- Le Châtelier's Principle
- Freezing-Point Depression to Determine an Unknown Compound
- Determining Rate Laws and the Order of Reaction

- Using Differential Scanning Calorimetry to Measure Changes in Enthalpy
- Coordination Chemistry Complexes
- Solid-Liquid Extraction

ORGANIC CHEMISTRY

Chemical and Physical Foundations of Biological Systems

- Introduction to Catalysis
- Assembly of a Reflux System for Heated Chemical Reactions
- Degassing Liquids with Freeze-Pump-Thaw Cycling
- Preparing Anhydrous Reagents and Equipment
- Purifying Compounds by Recrystallization
- Separation of Mixtures via Precipitation
- Solid-Liquid Extraction
- Fractional Distillation
- Growing Crystals for X-ray Diffraction Analysis
- Performing 1D Thin Layer Chromatography
- Column Chromatography

ANALYTICAL CHEMISTRY

Chemical and Physical Foundations of Biological Systems

- Sample Preparation for Analytical Characterization
- Ultraviolet-Visible (UV-Vis) Spectroscopy
- Gas Chromatography (GC) with Flame-Ionization Detection
- High-Performance Liquid Chromatography (HPLC)
- Ion-Exchange Chromatography
- Introduction to Mass Spectrometry

BIOCHEMISTRY

Chemical and Physical Foundations of Biological Systems

- Dialysis: Diffusion Based Separation
- Enzyme Assays and Kinetics
- Chromatography-based Biomolecule Purification Methods
- Two-Dimensional Gel Electrophoresis
- Metabolic Labeling
- Electrophoretic Mobility Shift Assay (EMSA)
- Photometric Protein Determination
- Density Gradient Ultracentrifugation
- Reconstitution of Membrane Proteins
- Förster Resonance Energy Transfer (FRET)

ORGANIC CHEMISTRY II

Chemical and Physical Foundations of Biological Systems

- Nucleophilic Substitution
- Reducing Agents
- Ozonolysis of Alkenes
- Organocatalysis
- Solid Phase Synthesis
- Hydrogenation
- Polymerization
- Melting Point
- Infrared Spectroscopy

INORGANIC CHEMISTRY

Chemical and Physical Foundations of Biological Systems

- Application of Group Theory to IR Spectroscopy
- Molecular Orbital (MO) Theory
- Photochemical Initiation Of Radical Polymerization Reactions

PHYSICS I

Chemical and Physical Foundations of Biological Systems

- Newton's Laws of Motion
- Force and Acceleration
- Vectors in Multiple Directions
- Kinematics and Projectile Motion
- Newton's Law of Universal Gravitation
- Conservation of Momentum
- Friction
- Hooke's Law and Simple Harmonic Motion
- Equilibrium and Free-body Diagrams
- Torque
- Rotational Inertia
- Angular Momentum
- Energy and Work
- Enthalpy
- Entropy

PHYSICS II

Chemical and Physical Foundations of Biological Systems

- Electric Fields
- Electric Potential
- Magnetic Fields
- Electric Charge in a Magnetic Field
- Investigation Ohm's Law for Ohmic and Nonohmic Conductors
- Series and Parallel Resistors
- Capacitance
- Inductance
- Semiconductors
- Photoelectric Effect
- Reflection and Refraction
- Interference and Diffraction
- Standing Waves
- Sound Waves and Doppler Shift

ENVIRONMENTAL MICROBIOLOGY

Biological and Biochemical Foundations of Living Systems

- Gram Staining of Bacteria from Environmental Sources
- Community DNA Extraction from Bacterial Colonies
- Detecting Environmental Microorganisms with the Polymerase Chain Reaction and Gel Electrophoresis
- RNA Analysis of Environmental Samples Using RT-PCR
- Quantifying Environmental Microorganisms and Viruses Using qPCR
- Water Quality Analysis via Indicator Organisms

- Detection of Bacteriophages in Environmental Samples
- Bacterial Growth Curve Analysis and its Environmental Applications

BEHAVIORAL SCIENCE

Psychological, Social, and Biological Foundations of Behavior

- An Introduction to Learning and Memory
- Fear Conditioning
- Spatial Memory Testing Using Mazes
- An Introduction to Cognition
- Electro-encephalography (EEG)
- Eye Tracking in Cognitive Experiments
- An Introduction to Motor Control
- Balance and Coordination Testing
- Assessing Dexterity with Reaching Tasks
- An Introduction to Reward and Addiction
- Positive Reinforcement Studies
- Self-administration Studies
- An Introduction to Modeling Behavioral Disorders and Stress
- Modeling Social Stress
- Anxiety Testing

EXPERIMENTAL PSYCHOLOGY

Psychological, Social, and Biological Foundations of Behavior

- Ethics in Psychology Research
- Perspectives on Experimental Psychology
- Observational Research

- The Simple Experiment: Two-group Design
- The Multi-group Experiment
- Within-subjects Repeated-measures Design
- Realism in Experimentation
- Pilot Testing
- The Factorial Experiment
- Self-report vs. Behavioral Measures of Recycling
- Reliability in Psychology Experiments
- Placebos in Research
- Manipulating an Independent Variable through Embodiment
- Experimentation using a Confederate

COGNITIVE PSYCHOLOGY

Psychological, Social, and Biological Foundations of Behavior

- Dichotic Listening
- Measuring Reaction Time and Donders' Method of Subtraction
- Perspectives on Cognitive Psychology
- Visual Search for Features and Conjunctions
- Binocular Rivalry
- Multiple Object Tracking
- Approximate Number Sense Test
- Mental Rotation
- Prospect Theory
- Measuring Verbal Working Memory Span
- The Precision of Visual Working Memory with Delayed Estimation
- Verbal Priming
- Incidental Encoding
- Visual Statistical Learning
- Motor Learning in Mirror Drawing

DEVELOPMENTAL PSYCHOLOGY

Psychological, Social, and Biological Foundations of Behavior

- Habituation: Studying Infants Before They Can Talk
- Using Your Head: Measuring Infants' Rational Imitation of Actions
- The Rouge Test: Searching for a Sense of Self
- Numerical Cognition: More or Less
- Mutual Exclusivity: How Children Learn the Meanings of Words
- How Children Solve Problems Using Causal Reasoning
- Metacognitive Development: How Children Estimate Their Memory
- Executive Function and the Dimensional Change Card Sort Task
- Categories and Inductive Inferences
- The Costs and Benefits of Natural Pedagogy
- Piaget's Conservation Task and the Influence of Task Demands
- Children's Reliance on Artist Intentions When Identifying Pictures
- Measuring Children's Trust in Testimony
- Are You Smart or Hardworking? How Praise Influences Children's Motivation
- Memory Development: Demonstrating How Repeated Questioning Leads to False Memories

NEUROPSYCHOLOGY

Psychological, Social, and Biological Foundations of Behavior

- The Split Brain
- Motor Maps

- Perspectives on Neuropsychology
- Decision-making and the Iowa Gambling Task
- Executive Function in Autism Spectrum Disorder
- Anterograde Amnesia
- Physiological Correlates of Emotion Recognition
- Event-related Potentials and the Oddball Task
- Language: The N400 in Semantic Incongruity
- Learning and Memory: The Remember-Know Task
- Measuring Grey Matter Differences with Voxel-based Morphometry: The Musical Brain
- Decoding Auditory Imagery with Multivoxel Pattern Analysis
- Visual Attention: fMRI Investigation of Object-based Attentional Control
- Visual Attention: fMRI Investigation of Object-based Attentional Control
- Using Diffusion Tensor Imaging in Traumatic Brain Injury
- Using TMS to Measure Motor Excitability During Action Observation

SENSATION AND PERCEPTION

Psychological, Social, and Biological Foundations of Behavior

- Color Afterimages
- Finding Your Blind Spot and Perceptual Filling-in
- Perspectives on Sensation and Perception
- Motion-induced Blindness
- The Rubber Hand Illusion
- The Ames Room
- Inattentional Blindness
- Spatial Cueing
- The Attentional Blink
- Crowding

- The Inverted-face Effect
- The McGurk Effect
- Just-noticeable Differences
- The Staircase Procedure for Finding a Perceptual Threshold
- Object Substitution Masking

SOCIAL PSYCHOLOGY

Psychological, Social, and Biological Foundations of Behavior

- Analyzing Situations in Helping Behavior
- Using fMRI to Dissect Moral Judgment
- Perspectives on Social Psychology
- Evaluating the Accuracy of Snap Judgments
- A Minority of One: Conformity to Group Norms
- Misattribution of Arousal and Cognitive Dissonance
- Marginal Dishonesty: The Adding-to-10 Task
- Ostracism: Effects of Being Ignored Over the Internet
- Inducing Emotions
- Persuasion: Motivational Factors Influencing Attitude Change
- Creating the Minimal Group Paradigm
- The Implicit Association Test
- Nonconscious Mimicry Occurs when Affiliation Goals are Present
- Effects of Thinking Abstractly or Concretely on Self-control
- Thinking Too Much Impairs Decision-Making

JoVE Core Videos

Undergraduate
Biology and Chemistry Concepts

BIOLOGICAL AND BIOCHEMICAL FOUNDATIONS OF LIVING SYSTEMS

- What are Proteins?
- Protein Organization
- Protein Folding
- Macromolecules
- The Central Dogma
- What is Gene Expression?
- The DNA Helix
- DNA Packaging
- Organization of Genes
- Karyotyping
- Replication in Prokaryotes
- Replication in Eukaryotes
- Transcription
- Translation
- Ribosomes
- What are Nucleic Acids?
- Phosphodiester Linkages
- RNA Structure
- Types of RNA
- MicroRNAs
- RNA Splicing
- Proofreading
- Mismatch Repair
- Nucleotide Excision Repair
- Mutations
- Epigenetic Regulation
- RNA Interference
- What is Metabolism?
- First Law of Thermodynamics
- Second Law of Thermodynamics
- Kinetic Energy
- Potential Energy
- Free Energy
- Activation Energy
- Induced-fit Model
- Hydrolysis of ATP
- Phosphorylation
- Feedback Inhibition
- What is Glycolysis?
- Energy-requiring Steps of Glycolysis
- Energy-releasing Steps of Glycolysis
- Pyruvate Oxidation
- The Citric Acid Cycle
- Electron Transport Chains
- Chemiosmosis
- Electron Carriers
- Fermentation

BIOLOGICAL AND BIOCHEMICAL FOUNDATIONS OF LIVING SYSTEMS

- Dietary Connections
- What are Cells?
- Cell Size
- Eukaryotic Compartmentalization
- What are Lipids?
- The Fluid Mosaic Model
- What is an Electrochemical Gradient?
- Diffusion
- Osmosis
- Tonicity in Animals
- Protein Associations
- Facilitated Transport
- Primary Active Transport
- Secondary Active Transport
- Receptor-mediated Endocytosis
- Pinocytosis
- Phagocytosis
- Exocytosis
- Contact-dependent Signaling
- The Nucleus
- Microtubules
- Mitochondria
- The Extracellular Matrix
- Tissues
- Prokaryotic Cells
- Bacterial Signaling
- Genomic DNA in Prokaryotes
- Binary Fission
- Replication in Prokaryotes
- Bacterial Transformation
- What are Viruses?
- Viral Structure
- Lytic Cycle of Bacteriophages
- Lysogenic Cycle of Bacteriophages
- Retrovirus Life Cycles
- Viral Recombination
- Viral Mutations
- Mitosis and Cytokinesis
- What is the Cell Cycle?
- Interphase
- Positive Regulator Molecules
- Negative Regulator Molecules
- Intracellular Signaling Cascades
- Spermatogenesis
- Oogenesis
- Fertilization
- Cleavage and Blastulation
- Gastrulation
- Neurulation
- Cell Migration
- Determination

BIOLOGICAL AND BIOCHEMICAL FOUNDATIONS OF LIVING SYSTEMS

- Induced Pluripotent Stem Cells
- Embryonic Stem Cells
- What is a Nervous System?
- The Sympathetic Nervous System
- The Parasympathetic Nervous System
- Neuron Structure
- Glial Cells
- Action Potentials
- The Resting Membrane Potential
- Long-term Potentiation
- Long-term Depression
- Ion Channels
- G-protein Coupled Receptors
- Synaptic Signaling
- Enzyme-linked Receptors
- What is the Endocrine System?
- Intracellular Hormone Receptors
- Cell-surface Signaling
- Feedback Loops
- Hypothalamic-Pituitary Axis
- Paracrine Signaling
- Endocrine Signaling
- What are Second Messengers?
- Intracellular Signaling Cascades
- The Respiratory System
- Breathing
- Lung Capacity
- Gas Exchange and Transport
- Anatomy of the Circulatory System
- Anatomy of the Heart
- The Cardiac Cycle
- Blood Flow
- Physiology of the Circulatory System
- What is the Immune System?
- Cell-mediated Immune Responses
- Humoral Immune Responses
- Antibody Structure
- Affinity and Avidity
- Cross-reactivity
- Allergic Reactions
- Inflammation
- Vaccinations
- What is Monogastric Digestion?
- Anatomy of the Intestines
- Accessory Organs
- Lipid Digestion
- Protein Digestion

BIOLOGICAL AND BIOCHEMICAL FOUNDATIONS OF LIVING SYSTEMS

- Carbohydrate Digestion
- Neural Regulation
- Hormonal Regulation
- Kidney Structure
- Filtration
- Urea Cycle
- Hormonal Regulation
- Spermatogenesis
- Fertilization
- Skeletal Muscle Anatomy
- Muscle Contraction
- Classification of Skeletal Muscle Fibers
- Cross-bridge Cycle
- Motor Units
- What is the Skeletal System?
- Bone Structure
- Joints
- Bone Remodeling
- Somatosensation

SCIENTIFIC INQUIRY AND REASONING SKILLS

- Thermosensation
- Levels of Organization
- Taxonomy
- Phylogeny
- Inductive Reasoning
- Deductive Reasoning
- Correlation and Causation
- The Scientific Method

PSYCHOLOGICAL, SOCIAL, AND BIOLOGICAL FOUNDATIONS OF BEHAVIOR

- What is a Sensory System?
- The Tongue and Taste Buds
- Gustation
- Olfaction
- Hearing
- Hair Cells
- The Cochlea
- The Vestibular System
- The Retina
- Somatosensation
- Thermosensation

CHEMICAL AND PHYSICAL FOUNDATIONS OF BIOLOGICAL SYSTEMS

- The Periodic Table and Organismal Elements
- Atomic Structure
- Electron Behavior
- Electron Orbital Model
- Molecules and Compounds
- Molecular Shapes
- Carbon Skeletons
- Covalent Bonds
- Ionic Bonds
- Hydrogen Bonds
- Van der Waals Interactions
- pH
- Solvents
- Specific Heat
- Vaporization
- What are Proteins?
- Protein Organization
- Protein Folding
- What are Carbohydrates?

CHEMICAL AND PHYSICAL FOUNDATIONS OF BIOLOGICAL SYSTEMS

- What are Lipids?
- What are Nucleic Acids?
- Cohesion
- States of Water
- Blood Flow
- Gas Exchange and Transport
- Lung Capacity
- Physiology of the Circulatory System
- Diffusion and Osmosis
- Diffusion
- Osmosis
- Cellular Respiration
- Chemical Reactions
- Redox Reactions
- Isotopes
- What is an Electrochemical Gradient?
- Electron Transport Chains
- What is a Sensory System?
- Hearing
- Hair Cells
- The Retina
- Vision
- The Periodic Table and Organismal Elements
- Adhesion
- Electron Carriers
- Glial Cells
- Action Potentials
- The Resting Membrane Potential
- Long-term Potentiation
- Long-term Depression
- Energy-requiring Steps of Glycolysis

JoVE Journal Relevant Videos

- *Synthesis of Monocyte-Targeting Peptide Amphiphile Micelles for Imaging of Atherosclerosis* - keyword -**Hydrophobic/Hydrophilic Amino Acids** - Biological and Physical Foundations of Biological Systems
- *Protein WISDOM: A Workbench for* In Silico De novo*Design of BioMolecules* - keyword -**Hydrophobic/Hydrophilic Amino Acids** - Biological and Physical Foundations of Biological Systems
- *A Protocol for Computer-Based Protein Structure and Function Prediction* - keyword -**Protein Structure** - Biological and Physical Foundations of Biological Systems
- *Contrast-Matching Detergent in Small-Angle Neutron Scattering Experiments for Membrane Protein Structure Analysis and* Ab Initio *Modeling* - keyword -**Protein Structure** - Biological and Physical Foundations of Biological Systems
- *Time-resolved ElectroSpray Ionization Hydrogen-Deuterium Exchange Mass Spectrometry for Studying Protein Structure and Dynamics* - keyword -**Protein Structure** - Biological and Physical Foundations of Biological Systems
- *Mass Spectrometric Approaches to Study Protein Structure and Interactions in Lyophilized Powders* - keyword -**Protein Structure** - Biological and Physical Foundations of Biological Systems
Optimized Negative Staining: a High-Throughput Protocol for
- *Examining Small and Asymmetric Protein Structure by Electron Microscopy* - keyword -**Protein Structure** - Biological and Physical Foundations of Biological Systems

- *Capillary Electrophoresis Separation of Monoclonal Antibody Isoforms Using a Neutral Capillary* - keyword -**Isoelectric Point Protein Separation** - Biological and Physical Foundations of Biological Systems
- *Highly Sensitive and Quantitative Detection of Proteins and their Isoforms by Capillary Isoelectric Focusing Method* - keyword -**Isoelectric Point Protein Separation** - Biological and Physical Foundation of Biological Systems
- *Total Protein Extraction and 2-D Gel Electrophoresis Methods for* Burkholderia *Species* - keyword -**Isoelectric Point Protein Separation** - Biological and Physical Foundations of Biological Systems
- *Electrophoretic Separation of Proteins* - keyword -**Electrophoresis Protein Separation** - Biological and Physical Foundations of Biological Systems
- *A Novel Saturation Mutagenesis Approach: Single Step Characterization of Regulatory Protein Binding Sites in RNA Using Phosphorothioates* - keyword -**Protein Binding** - Biological and Physical Foundations of Biological Systems
- *Dissipative Microgravimetry to Study the Binding Dynamics of the Phospholipid Binding Protein Annexin A2 to Solid-Supported Lipid Bilayers using a Quartz Resonator* - keyword -**Protein Binding** - Biological and Physical Foundations of Biological Systems
- *Profiling of Methyltransferases and Other S-Adenosyl-L-Homocysteine-binding Proteins by Capture Compound Mass Spectrometry* - keyword -**Protein Binding** - Biological and Physical Foundations of Biological Systems

- *Measuring Protein Binding to F-actin by Co-sedimentation* - keyword - **Protein Binding** - Biological and Physical Foundations of Biological Systems
- *DNA Polymerase Activity Assay Using Near-Infrared Fluorescent Labeled DNA Visualized by Acrylamide Gel Electrophoresis* - keyword - **Michaelis-Menten Kinetics** - Biological and Physical Foundations of Biological Systems
- *An Optimized Hemagglutination Inhibition (HI) Assay to Quantify Influenza-Specific Antibody Titers* - keyword - **Enzyme Inhibition Assay** - Biological and Physical Foundations of Biological Systems
- *Visualization of Mitochondrial DNA Replication to Individual Cells by EdU Signal Amplification* - keyword - **DNA Replication** - Chemical and Physical Foundations of Biological Systems
- *Profiling DNA Replication Timing Using Zebrafish as an* In Vivo *Model System* - keyword - **DNA Replication** - Chemical and Physical Foundations of Biological Systems
- *Direct Observation of Enzymes Replicating DNA Using a Single-Molecule DNA Stretching Assay* - keyword - **DNA Replication** - Chemical and Physical Foundations of Biological Systems
- *Application of Stopped-Flow Kinetics Methods to Investigate the Mechanism of Action of a DNA Repair Protein* - keyword - **DNA Repair** - Chemical and Physical Foundations of Biological Systems
- *Genetics Studies of Human DNA Repair Proteins Using Yeast as a Model System* - keyword - **DNA Repair** - Chemical and Physical Foundations of Biological Systems

- *gDNA Enrichment by a Transposase-Based Technology for NGS Analysis of the Whole Sequence of* BRCA1, BRCA2, *and 9 Genes Involved in DNA Damage repair* - keyword -**DNA Repair** - Chemical and Physical Foundations of Biological Systems
- *A Standard Methodology to Examine On-Site Mutagenicity as a Function of Point Mutation Repair Catalyzed by CRISPR/Cas9 and SsODN in Human Cells* - keyword -**DNA Mutation Repair** - Chemical and Physical Foundations of Biological Systems
- *Next Generation Sequencing for the Detection of Actionable Mutations in Solid and Liquid Tumors* - keyword -**Missense Mutation** - Biological and Physical Foundations of Biological Systems
- Genetic Studies of Human DNA Repair Proteins Using Yeast as a Model System - keyword -**Missense Mutation** - Biological and Physical Foundations of Biological Systems
- In vitro *Transcription and Capping of* Gaussia *Luciferase mRNA Followed by HeLa Cell Transfection* - keyword -**mRNA** - Biological and Physical Foundations of Biological Systems
- *Analysis of mRNA Nuclear Export Kinetics in Mammalian Cells by Microinjection* - keyword -**mRNA** - Biological and Physical Foundations of Biological Systems
- *Measuring the Kinetics of mRNA Transcription in Single Living Cells* - keyword -**mRNA** - Biological and Physical Foundations of Biological Systems
- *Genome-wide Analysis of Aminoacylation (Charging) Levels of tRNA Using Microarrays* - keyword -**tRNA** - Biological and Physical Foundations of Biological Systems

- *In vitro tRNA Methylation Assay with the* Entamoeba histolytica *DNA and tRNA Methlytransferase Dnmt2 (Ehmeth) Enzyme* - keyword - **tRNA** - Biological and Physical Foundations of Biological Systems
- *An* In Vitro *Assay to Detect tRNA-Isopentenyl Transferase Activity* - keyword - **tRNA** - Biological and Physical Foundations of Biological Systems
- *Protein-tRNA Agarose Gel Retardation Assays for the Analysis of the N6-threonylcarbamoyladenosine TcdA Function* - keyword - **tRNA** - Biological and Physical Foundations of Biological Systems
- *RNA Isolation from Embryonic Zebrafish and cDNA Synthesis for Gene Expression Analysis* - keyword - **rRNA** - Biological and Physical Foundations of Biological Systems
- *Analysis of Translation Initiation During Stress Conditions by Polysome Profiling* - keyword - **RNA Translation** - Biological and Physical Foundations of Biological Systems
- *Assessment of Selective mRNA Translation in Mammalian Cells by Polysome Profiling* - keyword - **RNA Translation** - Biological and Physical Foundations of Biological Systems
- *Tools to Study the Role of Architectural Protein HMGB1 in the Processing of Helix Distorting, Site-specific DNA Interstrand Crosslinks* - keyword - **Supercoiling** - Biological and Physical Foundations of Biological Systems
- *Telomere Length and Telomerase Activity; A Yin and Yang of Cell Senescence* - keyword - **Telomere** - Biological and Physical Foundations of Biological Systems
- *Methods to Discover Alternative Promoter Usage and Transcriptional Regulation of Murine Bcrp1* - keyword - **Transcriptional Regulation** - Biological and Physical Foundations of Biological Systems