

Biochemistry, Microbiology and Immunology, Wayne State University: Departmental Faculty

PRIMARY FACULTY

- ACKERMAN**, Sharon H., Associate Professor. Ph.D., New York University, 1987; postdoctoral, Columbia University, 1987-91. Assembly of the mitochondrial F₁F₀ ATPase of *Saccharomyces cerevisiae*. sackerm@med.wayne.edu
- AKINS**, Robert A., Professor. Ph.D., Ohio State University, 1982; postdoctoral, St. Louis University Medical Center, 1982-86. Investigating causes for the microbial progression from bacterial vaginosis to cure to recurrence. Development of a BV diagnostic and prognostic device. Development and validation of molecular tools for high throughput, quantitative identification of fungi directly from clinical samples. Non-mutation based antifungal resistance mechanisms, including rogue regulators and novel morphotypes in *Candida albicans*. rakins@med.wayne.edu
- BRUSILOV**, William S., Professor. Ph.D., University of Wisconsin, 1980; postdoctoral, Stanford University, 1980-83. Structure and function of the *E. coli* ATPase. The role of nitrogen metabolism in the inflammatory response. wbrusilo@med.wayne.edu
- EDWARDS**, Brian F.P., Professor. Ph.D., Harvard, 1975; postdoctoral, Harvard University 1974-75; University of Alberta, 1975-80. X-ray crystallography and functional analysis of proteins involved in blood clotting, metal catalyzed enzymology, pyrimidine biosynthesis and multienzyme reactor complexes. bedwards@med.wayne.edu
- EVANS**, David R., Professor. Ph.D., Wayne State University, 1968; postdoctoral, Harvard University, 1968-75. Structure and catalytic mechanism of dihydroorotase and the design of drugs targeting the enzyme. Mechanism of FAM129B, a protein involved breast cancer metastasis and apoptosis. Interdomain signaling and regulation by signaling cascades of proteins catalyzing pyrimidine biosynthesis. drevans@med.wayne.edu
- GATTI**, Domenico L., Associate Professor. M.D., Catholic University of S. Cuore, Rome, Italy, 1982; Ph.D., University of Bari, Italy, 1987; postdoctoral, Columbia University, 1987-91; University of Michigan, 1991-95. Structure of proteins involved in energy transduction in bacterial and eukaryotic membranes. Computational methods in biochemistry, structural biology, and bioinformatics. dgatti@med.wayne.edu
- HE**, Yuan, Assistant Professor, Ph.D. in Cell and Developmental Biology at the University of Illinois at Urbana-Champaign, 2011; Postdoc., University of Michigan, 2017. Research focus is on innate immunity. zhe@med.wayne.edu
- JACKSON**, Matthew P., Associate Professor. Ph.D., Kansas State, 1985. Medical School Administration. Pathogenic mechanisms of bacterial toxins; structure-function analysis of Shiga toxin; genetic engineering of toxin chimeras; educational technology. mpjacks@med.wayne.edu
- KOVARI**, Ladislau C., Professor. Ph.D., University of Tennessee Health Science Center, 1992; postdoctoral, Purdue University, 1992-1997. Structure-function studies of viral drug targets using X-ray crystallographic, biochemical, and computational methods. Structure-based drug design. Drug resistance. Ongoing collaborative projects include the study of HIV-1, hepatitis C virus, norovirus, and Ebola virus drug targets. kovari@med.wayne.edu
- LI**, QianQian, Associate Professor, Research. M.D., Nanjing Medical University, 1982; M.Sc., University of Alberta, 1996. Protein-induced pluripotent stem cell technology. Stem cell biology. Stem cell-based cancer therapy. Protein-induced in situ cell reprogramming for disease treatment. Stem cell based regenerative medicine. Protein drug delivery technology. qil@med.wayne.edu
- MITRA**, Bharati, Professor. Ph.D., Cornell University, 1990; postdoctoral, University of Maryland, 1990-94. Structure- function relationships in proteins, enzyme mechanisms. Transition and heavy metal transporting proteins. Role of heavy metals in prostate cancer disparities. bmitra@med.wayne.edu
- PELLETT**, Philip E., Professor and Chair. Ph.D., University of Chicago, 1986. Virus-host cell interactions during human cytomegalovirus replication, including remodeling of the secretory apparatus and interactions with cellular microRNAs; immunology of human herpesviruses; herpesvirus evolution. ppellet@med.wayne.edu
- SEBZDA**, Eric, Associate Professor, B.Sc., University of Toronto, Canada 1992; Ph.D., University of Toronto, Canada 1998. Regulation of adaptive immune responses to treat cancer and autoimmunity. eric.sebzda@wayne.edu
- THEIS**, Kevin R., Assistant Professor. Ph.D., Michigan State University, 2008. Host-microbe interactions with emphases on the perinatal microbiome and the influences of symbiotic microbes on behavior. ktheis@med.wayne.edu
- THIPPARTHI**, Raghavendar, Associate Professor. Ph.D., Hyderabad (India), 1989. Cellular proteins and post-transcriptional regulation of HIV-1 gene expression. trreddy@med.wayne.edu
- TSE**, Harley Y., Professor. Ph.D., California, San Diego, 1977. Genetic regulation of T-cell functions; T-cell migration and chronic relapsing model of murine experimental autoimmune encephalomyelitis. htse@wayne.edu
- WANG**, Jianjun, Professor. Ph.D., Nanjing University, 1988; postdoctoral, University of Alberta, 1990-1994. Stem cell biology and induced pluripotent stem cell technology and their clinical applications to treat human diseases such as cancers and heart diseases. Protein-induced in situ Cell reprogramming technology and protein delivery technology. In vivo molecular imaging. Protein-induced cell converting regenerative medicine. Structural Biology using protein NMR techniques. jiwang@med.wayne.edu
- WITHEY**, Jeffrey H., Associate Professor, Ph.D., University of Michigan, 2000. Control of *Vibrio cholerae* virulence; transcriptional regulation; protein-DNA interactions. jwithey@med.wayne.edu
- YANG**, Zhe. Associate Professor. Ph.D., Institute of Biophysics, Chinese Academy of Sciences, 1999; postdoctoral, University of California, San Diego, 1999-2002; Emory University, 2002-2006. Structural and functional analysis by X-ray crystallography of interactions between HIV proteins and histone modification complexes. Structure and function of histone methylation in heart development and cardiovascular diseases. zyang@med.wayne.edu

ASSOCIATE FACULTY

- FINLEY**, Russell L., Professor, Center for Molecular Medicine and Genetics. Ph.D., SUNY Upstate Medical University, 1990; postdoctoral, Harvard Medical School and Massachusetts General Hospital 1990-1995. Regulatory networks that control cell proliferation. Cell cycle regulation during *Drosophila* development. Mapping and analysis of protein interaction networks. rfinley@wayne.edu
- HÜTTEMANN**, Maik, Professor, Ph.D., Philipps University, Germany, 1999; postdoctoral, Wayne State University, 2000-02. Mitochondrial function using genetic and biochemical approaches with a focus on cytochrome c oxidase (COX) and the small electron carrier, cytochrome c. ah6179@wayne.edu
- TSENG**, Yan Yuan. Assistant Professor, Ph.D., University of Illinois at Chicago, 2006; postdoctoral, University of Illinois at Chicago, 2007-2012. Protein structure, function, classification and evolution; single nucleotide polymorphisms; geometric modeling and molecular simulations. ytseng@wayne.edu
- ZHANG**, Kezhong, Professor, Ph.D., Fudan University (China), 1998. Intracellular stress signaling in inflammation, metabolism, and oncogenesis; ER stress, unfolded protein response, and toll-like receptor signaling; lipid and glucose metabolism; autoimmune diseases, metabolic disorders, and human breast cancer. kzhang@med.wayne.edu

JOINT FACULTY

- CHEN**, Kang, Assistant Professor, Ph.D., Cornell University, 2009. Immunology of B cell differentiation and antibody diversification, mucosal immunology, reproductive immunology. kchen@med.wayne.edu
- GOMEZ-LOPEZ**, Nardhy Y., Assistant Professor, Ph.D., National School of Biological Sciences, IPN, (Mexico), 2009. Immunological pathways in pregnancy and related pathologies such as preterm birth. ngomezlo@med.wayne.edu
- HILLMAN**, Gilda G., Associate Professor, Ph.D., Hebrew University (Israel), 1983. Modulation of immune responses in irradiated normal lung by soy isoflavones; isoflavones to augment radiotherapy of lung carcinoma. hillmang@karmanos.org
- MI**, Qing-Sheng, Professor, M.D., Ph.D., Taishan Medical University (China), 1985. Epigenetic immune regulation (miRNAs and histone modification), especially on NKT cells, dendritic cells and Langerhans cells, in autoimmunity, tumor immunity, skin immunity, and skin cancer. Serum miRNA biomarkers for disease prediction, prognosis and immunotherapy, including Type 1 diabetes, psoriatic arthritis, and melanoma. gmi1@hfs.org
- SUVAS**, Susmit, Associate Professor, Ph.D., Jawaharlal Nehru University (JNU), India 2002. Immunopathogenesis of ocular herpes simplex virus 1 infection-induced keratitis and immunobiology of Foxp3+ regulatory T cells during inflammation. ssuvas@med.wayne.edu
- WEI**, Wei-Zen, Professor, Ph.D., Brown, 1978. Tumor immunotherapy, recombinant cancer vaccines, mammary tumor progression and prevention; T-cell antigen processing and presentation. weiw@karmanos.org

ZHOU, Li, Assistant Professor, M.D., Taishan Medical University, (China) 1985. miRNA immune regulation and its related diseases including autoimmune vitiligo and melanoma. zhou1@hfhs.org

EMERITUS & EMERITA FACULTY

BERK, Richard S., Professor-Emeritus. Ph.D., Chicago, 1958. Pathogenesis of *Pseudomonas* infections in normal and immunologically debilitated animals; corneal infections-bacterial toxins; sulfur metabolism; bacterial nutrition. rberk@med.wayne.edu

HOLLAND, Thomas C., Associate Professor. Ph.D., Penn State, 1978. Herpes simplex virus glycoprotein structure and function; innate immunity against herpes simplex virus. tholland@med.wayne.edu

HUDSON, Alan P., Professor-Emeritus. Ph.D., CUNY, 1978. Molecular mechanisms of pathogenesis for *C. trachomatis*, control of mitochondrial gene expression. ahudson@med.wayne.edu

JOHNSON, Robert M., Professor-Emeritus. Ph.D., Columbia University, 1970; postdoctoral, Cornell University, 1970-73. Structure and function of erythrocyte membranes; anti-oxidants; globin gene expression. rmjohns@med.wayne.edu

KONG, Yi-chi M., Professor-Emerita. Ph.D., Michigan, 1961. Mechanisms of induction and maintenance of immunologic tolerance to foreign and to self antigens; genetic control of autoimmune thyroid disease in human-transgenic animal models; regulation of trimolecular interactions among MHC peptides, T-cell receptors, and antigenic epitopes. ykong@med.wayne.edu

MONTGOMERY, Paul C., Professor-Emeritus, Ph.D.

ROSEN, Barry P., Professor-Emeritus. Ph.D. University of Connecticut, 1969; postdoctoral, Cornell Univ. 1969-71. Molecular mechanisms of metal transport and resistance. brosen@fiu.edu <https://chemistry.fiu.edu/faculty/barry-rosen/>

SWANBORG, Robert H., Professor-Emeritus. Ph.D., SUNY at Buffalo, 1965. Mechanisms of immunologic self-tolerance and autoimmune disease, using experimental allergic encephalomyelitis; cellular interactions in the immune response; neuroimmunology. rswanbo@med.wayne.edu

WHITTUM-HUDSON, Judith A., Professor-Emerita. Ph.D., Connecticut, 1980. Immunopathogenesis of infectious diseases (Chlamydia; immunology of an anti-chlamydial vaccine; ocular and mucosal immunology, chronic inflammatory and autoimmune diseases especially those associated with chlamydia (arthritis, genital tract, CNS). jhudson@med.wayne.edu

YOSHIMURA, Fayth K., Professor-Emerita. Ph.D., Yale, 1972. Murine leukemia virus DNA; retroviral tumorigenesis; ER stress and apoptosis. fyoshi@med.wayne.edu