

# FACULTY AWARDED PATENTS

*Patents are arranged in chronological order by Fiscal Year 2020 issue date.*

## Lai-Xi Wang

Wei Huang

### School of Medicine

“Chemoenzymatic Glycoengineering of Antibodies and Fc Fragments Thereof”

## Robert Ernst

Mark Pelletier

Adeline Hajjar (University of Washington)

### School of Dentistry

“Immunotherapeutic Potential of Modified Lipooligosaccharides/Lipid A”

## Feyruz Rassool

Carine Robert

Nidal Muvarak

Khadiza Chowdhury

Stephen Baylin (Johns Hopkins University)

### School of Medicine

“Therapy Regimen and Methods to Sensitize Cancer Cells Treated with Epigenetic Therapy to PARP Inhibitors in Multiple Cancers”

## Steven Tropello

### School of Medicine

“Coaptation Ultrasound Devices and Methods of Use”

## Zhongjun Wu

Bartley Griffith

David Wells (Breethe, Inc.)

### School of Medicine

“Artificial Lung System and its Methods of Use”

## Sunjay Kaushal

Dean Ho (Northwestern University)

Patrick McCarthy (Northwestern University)

Erik Robinson (Northwestern University)

### School of Medicine

“Para-Xylene Films and Therapeutic Uses Thereof”

## Matthew Frieman

Peter Jahrling (National Institutes of Health)

Lisa Hensley (National Institutes of Health)

### School of Medicine

“Methods of Treating Coronavirus Infection”

## David Goodlett

Robert Ernst

### School of Pharmacy

“Methods for Identifying Fungi”

## Mary Ann Jabra-Rizk

Svetlana Ikononova (University of Maryland, College Park)

Amy Karlsson (University of Maryland, College Park)

### School of Dentistry

“Histatin-5 Based Synthetic Peptides and Uses Thereof”

## Dai-Wei Gong

Rongze Yang

Alan Shuldiner

Daozhan Yu

Ling Chen

### School of Medicine

“Methods for Treating Cardiovascular Dysfunction and Improving Fluid Homeostatis with a Peptide Hormone”

## Peixin Yang

Dean E. Albert Reece

### School of Medicine

“Use of Trehalose for Prevention of Neural Tube Defects”

## Horea Rus

Cosmin Tegla

Cornelia Cudrici

### School of Medicine

“Diagnosis and Prognosis of Multiple Sclerosis”

## Alexander MacKerell Jr.

Anthony Capobianco (University of Miami)

Mark Spyvee (University of Miami)

### School of Pharmacy

“Inhibitors of the Notch Transcriptional Activation Complex and Methods for Use of the Same”

## Jerimy Polf

Emily Draeger

Stephen Peterson

Sam Beddar (MD Anderson Cancer Center)

Dennis Mackin (MD Anderson Cancer Center)

### School of Medicine

“Techniques for Producing an Image of Radioactive Emissions Using a Compton Camera”

## Christopher deFilippi

Robert Christenson

Stephen Seliger

James de Lemos (University of Texas-Southwestern)

### School of Medicine

“Methods for Assessing Differential Risk for Developing Heart Failure”

## Bruce Yu

Marc Taraban

Yue Feng

### School of Pharmacy

“Biopharmaceutical Aggregation Assessment and Counterfeit Detection Using Magnetic Resonance Relaxometry”

## L. Elliott Hong

Fow-Sen Choa (University of Maryland, Baltimore County)

### School of Medicine

“Methods and Systems for Controlling Magnetic Fields and Magnetic Field Induced Current”

## Myron M. Levine

Michael Fiechtner (Becton Dickinson)

Francis Go (Becton Dickinson)

Scott Castanon (Becton Dickinson)

### School of Medicine

“Devices and Techniques for Oral Fluid Collection and Seroprotection Testing”

## J. Marc Simard

Mingkui Chen

### School of Medicine

“Methods for Treating Central or Peripheral Nervous System Damage”

## Erik Lillehoj

Avelino Verceles

Simeon Goldblum

### School of Medicine

“MUC1 Decoy Peptides for Treatment and Prevention of Bacterial Infections”

## Robert Bloch

Patrick Desmond

Michele Markwardt

Joaquin Muriel

Megan Rizzo

### School of Medicine

“Regulating Calcium in Excitable Cells with a Novel Protein”

## Hao Zhang

Warren D’Souza

Gokhan Kirlik

### School of Medicine

“System and Method for Optimizing a Treatment Plan for Irradiation Therapy Using Multi-Criteria Optimization (MCO)”

## Raphael Simon

Alan Cross

Sharon Tennant

### School of Medicine

“Broad Spectrum Conjugate Vaccine to Prevent Klebsiella Pneumoniae and Pseudomonas Aeruginosa Infections”

## Wuyuan Lu

Isaac Witz (Tel Aviv)

Shelly Maman (Tel Aviv)

### School of Medicine

“Treatment of Cancer and Inhibition of Metastasis using Hemoglobin Beta Subunit”

## Henryk Szmazinski

Joseph Lakowicz

### School of Medicine

“Plasmonic Substrates for Metal-Enhanced Fluorescence Based Sensing, Imaging and Assays for Cells”

## Toni Antal

Erik Martin

### School of Medicine

“Engineered Anthrax Protective Antigen Proteins for Cancer Therapy”

## J. Marc Simard

Mingkui Chen

### School of Medicine

“Therapeutic Methods That Target the NC CA-ATP Channel”

## Vincent Njar

Puranik Purushottamachar

### School of Medicine

“Nonsteroidal and Steroidal Compounds with Potent Androgen Receptor Down-Regulation and Anti Prostate Cancer Activity”

## Robert Bloch

Andrea O’Neill

Joseph Roche

Amber Mueller

Paraskevi Sakellariou

### School of Medicine

“Methods of Generating Mature Human Muscle Fibers”

## James Gammie

Peter Wilson (Harpoon Medical, Inc.)

Peter Boyd (Harpoon Medical, Inc.)

Bill Niland (Harpoon Medical, Inc.)

### School of Medicine

“Method and Apparatus for Transapical Procedures on a Mitral Valve”

## Jeffrey Hirsch

David Eisenman

### School of Medicine

“Ossicular Prosthesis and Method and System for Manufacturing Same”

## Fengtian Xue

Iqbal Hamza (University of Maryland, College Park)

### School of Pharmacy

“Compounds for Treating Parasitic Infections”

## Vincent Njar

Puranik Purushottamachar

Andrew Kwegyir-Afful

### School of Medicine

“Methods of Treating Pancreatic Cancer”

## Feng Jiang

### School of Medicine

“Biomarkers for Diagnosis and Prognosis of Lung Cancer”

## Dudley Strickland

Manuel Yepes

Daniel Lawrence (University of Michigan)

Enming Su (University of Michigan)

Ulf Ericksson (Ludwig Institute for Cancer Research)

Linda Fredriksson (Ludwig Institute for Cancer Research)

### School of Medicine

“Methods and Compositions for Modulation of Blood-Neural Barrier”

## Colin Mackenzie

Shiming Yang

Peter Hu

Evan Garofalo

### School of Medicine

“Automated Surgeon Performance Evaluation”

## Zhongjun Wu

Bartley Griffith

Keshava Rajagopal

### School of Medicine

“Self-Sealing Cannula”