“Finding a Pixie Dust for Cell Membrane Repair and Regenerative Medicine”

About Dr. Ma:
Dr. Jianjie Ma is the Karl P. Klassen Chair of Thoracic Surgery, the Ohio State University Wexner Medical center. Dr. Ma has mentored many PhD, postdoctoral scholars, junior faculties and clinician scientists who went on to become leaders in academia, medicine and pharmaceutical industries.

My research programs are focused on aging biology, cardiovascular disease and regenerative medicine. During the past 28 years of my academia research, I am fortunate to have worked with many leading scientists in these fields, who brought complementary expertise to our team effort of understanding the physiological function of newly discovered genes. The serendipitous discovery of MG53 as a membrane repair gene was such an example. I am delighted to be in the Department of Surgery, Davis Heart and Lung Research Institute, at The Ohio State University (OSU), and to have the opportunity to communicate with clinician scientists who are engaged aging and regenerative medicine research.

One of the most exciting contributions Dr. Ma has made to the regenerative medicine field is his discovery of MG53 as a key member of the cell membrane repair machinery. MG53 can potentially be used to rejuvenate satellite cells to treat muscle aging (Project 1); to modulate macrophage function to combat inflammation and fibrosis associated with chronic kidney injuries (Project 2); and to preserve cardiomyocyte integrity associated with aging-related heart failure (Project 3). Together, we aim to translate the basic findings of the benefits of MG53 into therapeutic treatments of age-related multi-organ dysfunctions: muscle weakness, kidney diseases and heart failure.

Dr. Ma was recently invited to present at TEDxColumbus 2018. You can watch it at: https://www.youtube.com/watch?v=GSdGpF_GFss.

Thursday, September 19, 2019
10:00 am, Room 218, Whitaker Hall

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