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2023 - Chair, Dept. of Cellular & Integrative Physiology
2022 - Director, UNMC Center for Heart and Vascular Research
2006 - PhD - The Johns Hopkins University
2001 - MS - The George Washington University
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The Gundry laboratory makes discoveries of the human heart - transforming our understanding of what molecules are present in the human heart and how they change in disease. This new insight fuels our understanding of disease processes and reveals untapped therapeutic targets. We are also developing new tools and reagents to promote the use of stem cell technologies for improved drug testing and disease modeling.

To achieve our goals, we develop and apply innovative mass spectrometry (MS) technologies, bioinformatics tools, and methodologies to transform our understanding of cell surface glycoproteins and glycans and answer outstanding questions in stem cell biology and cardiac pathology & disease. We focus on the subset of molecules localized to the cell surface (i.e. the surfaceome), including transmembrane, GPI-anchored, and ECM proteins and glycans because these can be optimally exploited for immunophenotyping, drug targeting, and are critical players in normal cardiac function and disease.