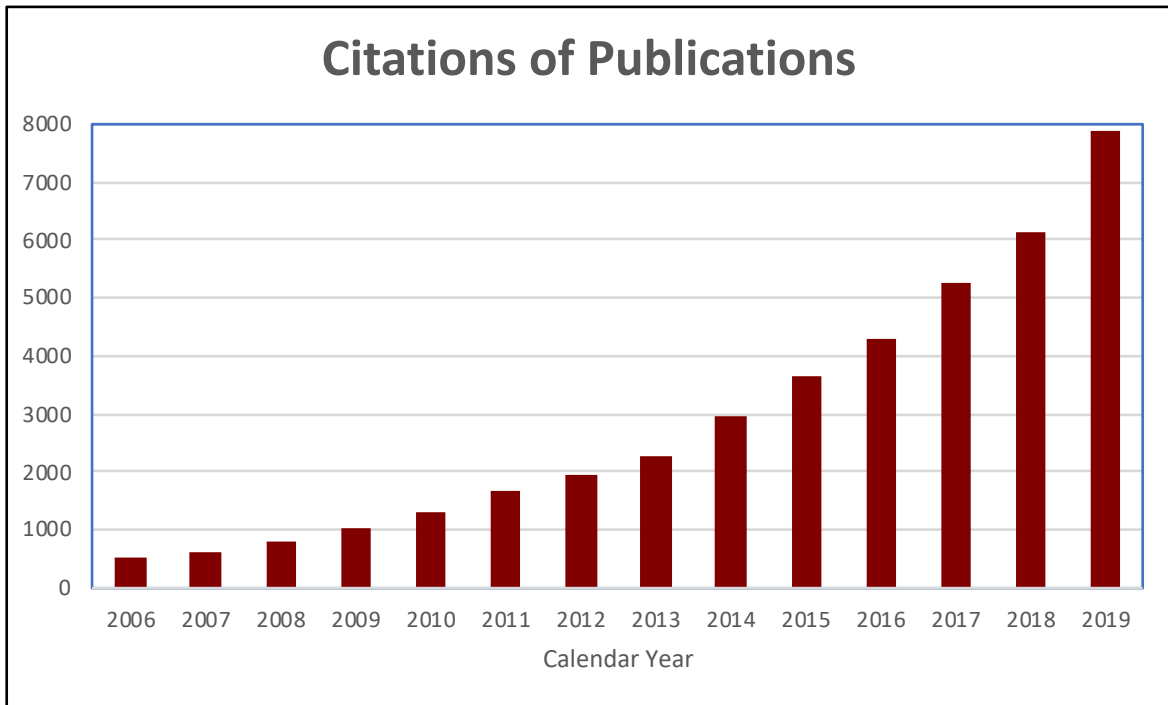
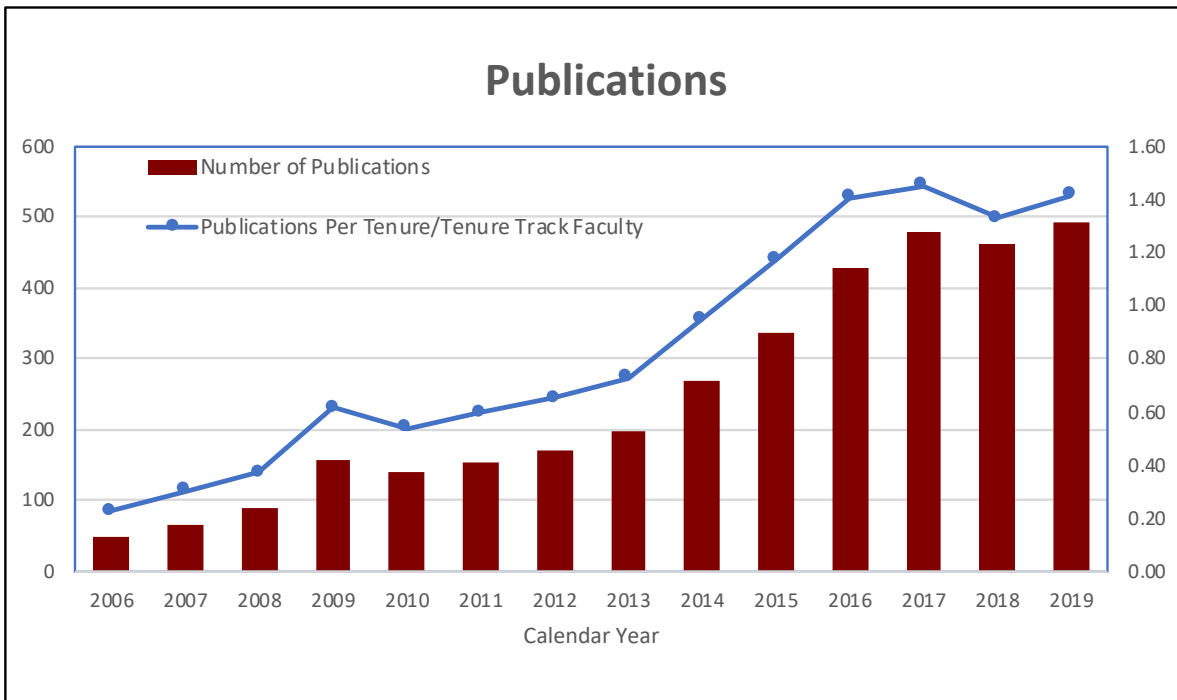




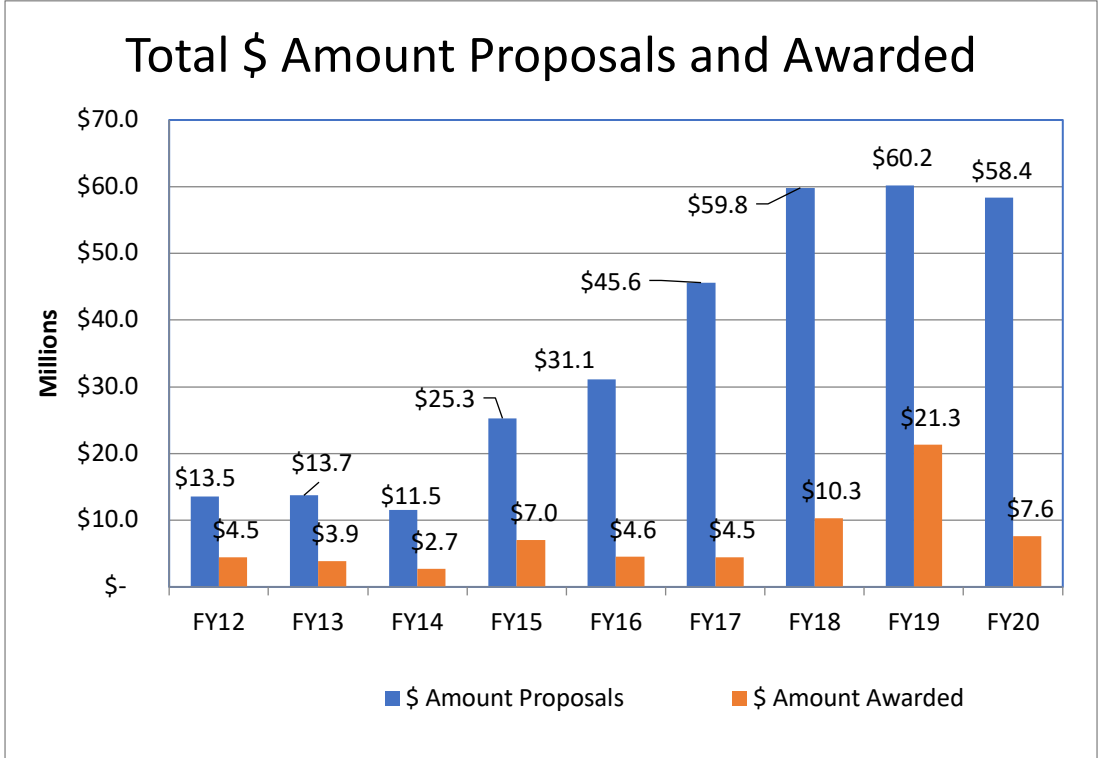
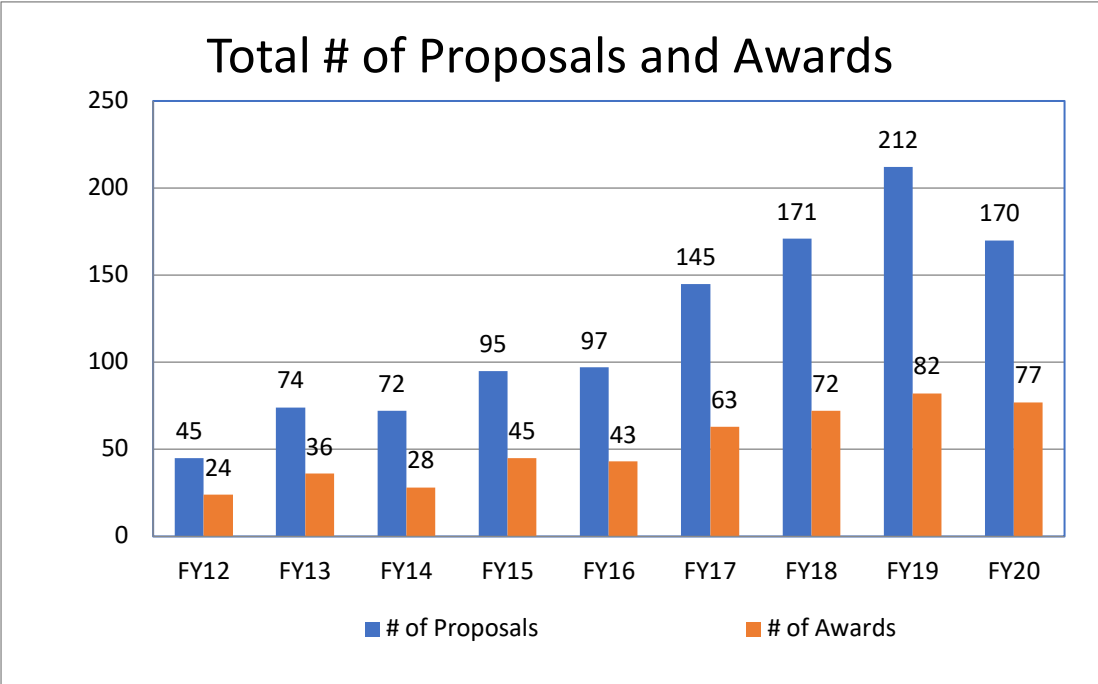
2019 – 2020

Research and Scholarship



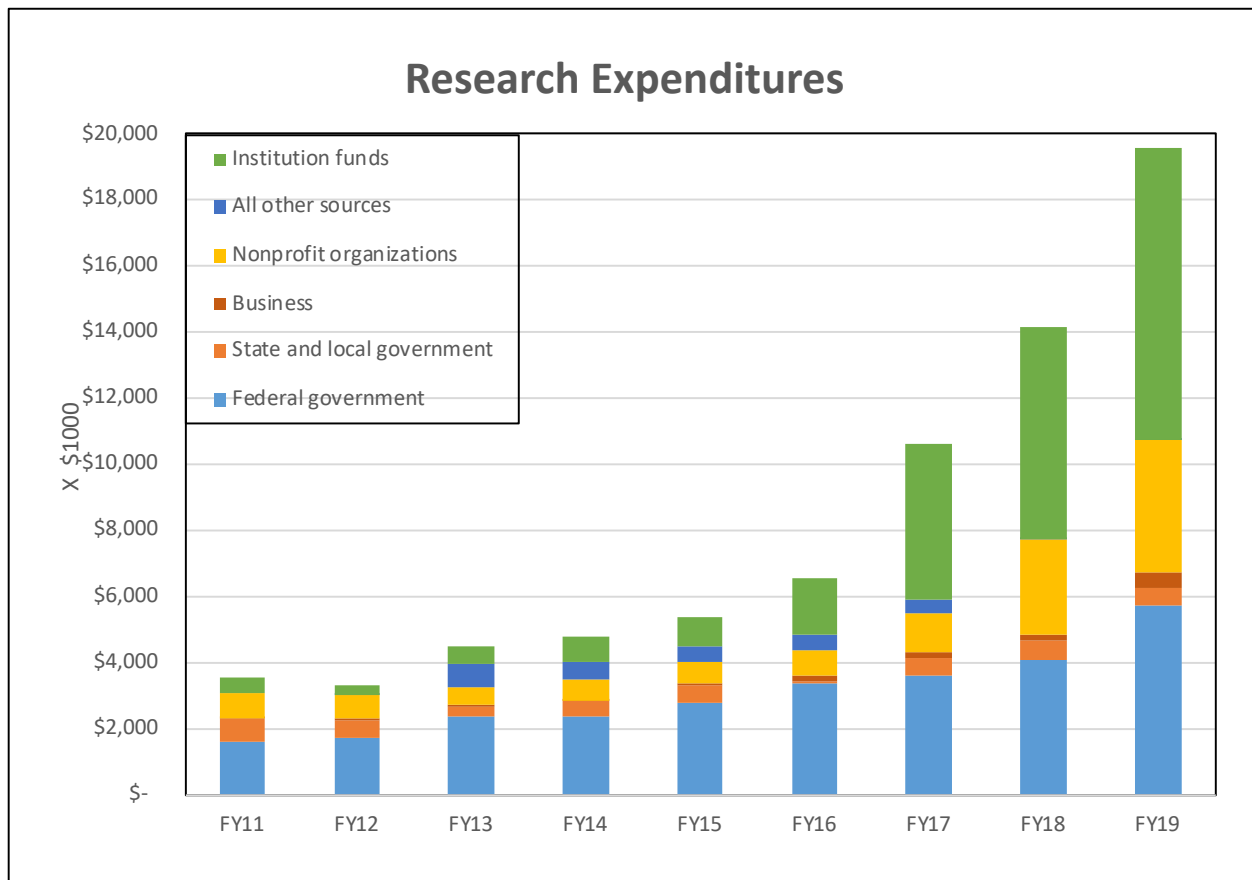
Source: Web of Science

2019-2020 By the Numbers



2019-2020 By the Numbers Awards (Grants and Contracts)

Unit	Amount
Argyros School of Business	\$ 665,640
<i>Economic Science Institute</i>	\$ 665,460
Attallah College of Education	\$ 1,552,209
<i>Thompson Policy Institute</i>	\$ 1,552,209
Crean College of Health and Behavioral Sciences	\$ 1,400,619
<i>Brain Institute</i>	\$ 43,915
Fowler School of Law	\$ 428,779
Schmid College of Science and Technology	\$ 1,672,661
<i>Institute for Quantum Studies</i>	\$ 494,697
<i>Center for Excellence in Earth Systems Modeling & Observations</i>	\$ 38,793
School of Pharmacy	\$ 1,681,439
Wilkinson College of Arts, Humanities, and Social Sciences	\$ 119,458
Provost Office	\$ 53,000
TOTAL AWARDS	\$ 7,573,805



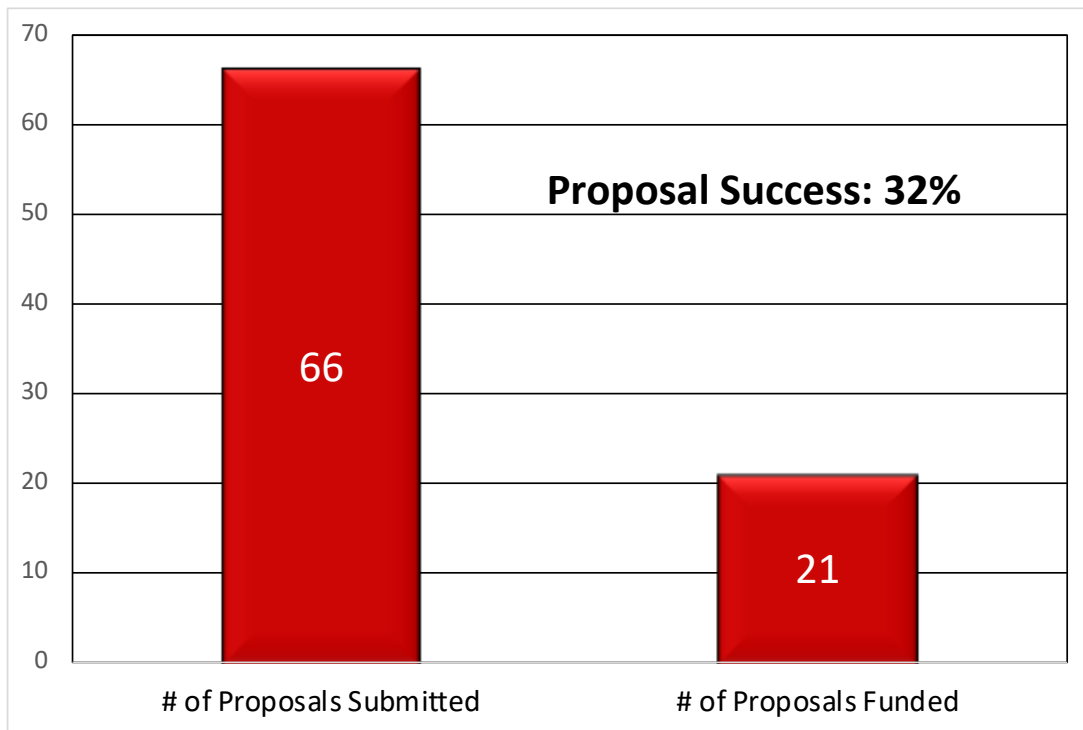
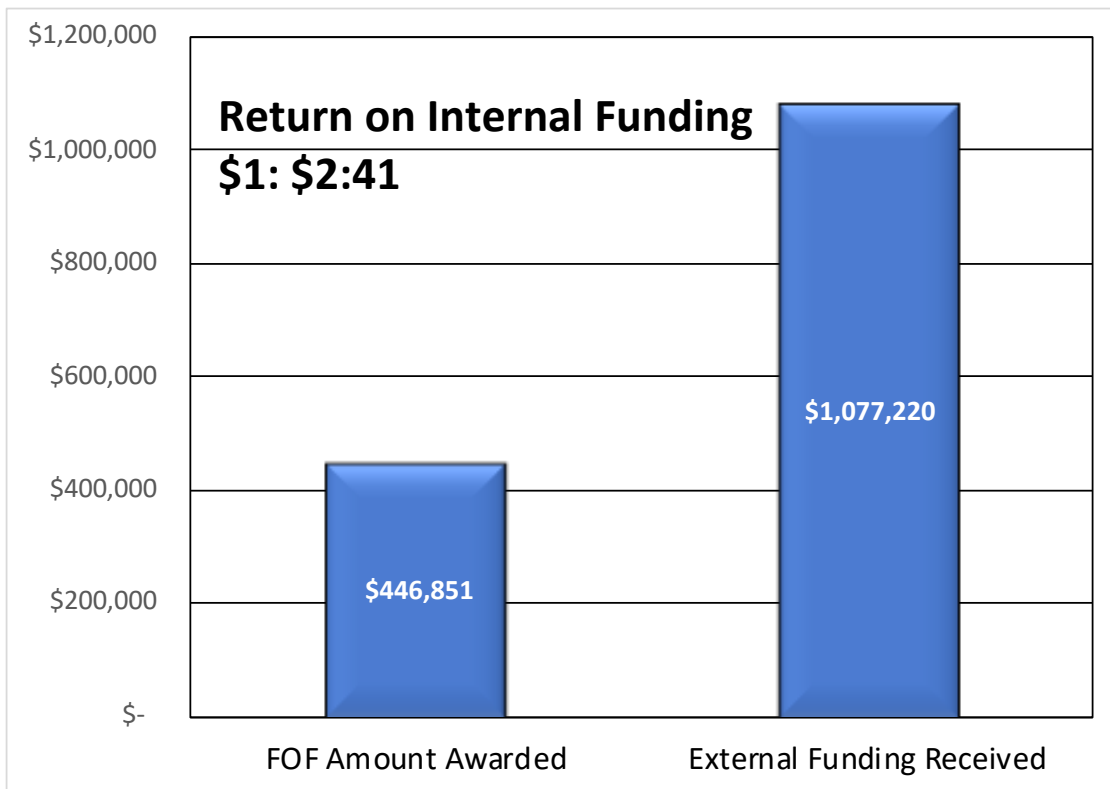
Faculty Proposals Submitted

FY	# of Proposals	Dollars Requested	# of Faculty	Federal	Foundation/NonProfit	State/Local	Industry/Other	NSF	NIH	NEA/NEH	0-100K	100K-500K	500K-1M	>1M
2007	31	\$ 7,303,915.00	20	14	5	2	8	8	1	1	15	7	1	2
2008	24	\$ 6,268,126.00	17	10	7	5	2	4	0	0	9	11	2	1
2009	73	\$ 29,398,029.00	40	45	21	2	5	17	4	3	43	18	6	5
2010	64	\$ 24,365,895.00	42	44	13	4	3	16	2	1	33	19	8	3
2011	51	\$ 8,872,575.00	34	33	9	3	6	17	6	1	32	13	3	0
2012	50	\$ 13,522,513.00	40	28	1	4	2	11	3	3	21	21	3	2
2013	81	\$ 13,724,663.00	59	46	27	2	6	13	7	8	51	22	4	2
2014	74	\$ 11,508,757.00	46	45	22	3	2	11	12	8	41	27	4	0
2015	97	\$ 25,026,989.00	60	58	31	0	5	12	12	6	51	31	8	5
2016	99	\$ 31,126,813.00	63	49	37	1	8	10	15	4	50	34	8	5
2017	147	\$ 36,248,314.00	79	74	51	1	14	16	27	3	83	37	12	12
2018	169	\$ 59,834,653.00	96	N/A	N/A	N/A	N/A	24	37	3	???	27	10	8
2019	212	\$ 60,236,223.00	112	80	68	11	50	19	16	4	178	58	14	17
2020	170	\$ 58,430,700.00	113	87	57	21	59	11	14	0	117	75	20	13

Faculty Awards Granted

FY	# of Awards	Total Dollars Awarded	# of Faculty	Federal	Foundation/	State/Local	Industry/Oth	NSF	NIH	NEA/NEH	0-100K	100K-500K	500K-1M	>1M
2007	12	\$ 1,365,036	8	5	1	1	5	4	0	1	8	3	0	0
2008	14	\$ 2,148,587	11	6	4	3	1	3	0	0	8	5	1	0
2009	33	\$ 3,398,736	18	16	12	1	4	7	0	1	26	7	0	0
2010	21	\$ 1,736,686	18	12	5	2	2	3	0	0	17	4	0	0
2011	20	\$ 2,942,724	16	9	4	3	3	4	0	0	17	3	0	0
2012	24	\$ 4,473,745	24	11	10	3	0	2	0	0	13	11	2	0
2013	38	\$ 3,881,754	32	17	15	2	3	4	2	3	28	10	1	0
2014	22	\$ 2,709,559	17	12	11	2	1	2	5	0	20	7	0	0
2015	37	\$ 7,026,764	30	17	17	2	2	4	1	2	28	10	1	1
2016	28	\$ 4,661,484	28	10	16	1	4	1	3	0	25	7	1	0
2017	55	\$ 5,693,093	35	17	23	3	9	4	7	0	42	12	1	0
2018	71	\$ 10,306,350	45	35	21	5	12	4	10	0	49	20	2	1
2019	81	\$ 21,285,754	56	32	24	6	18	5	9	0	46	27	2	5
2020	77	\$ 7,573,625	52	35	22	4	19	5	9	1	58	21	1	0

Impact of Internal Funding Program (Faculty Opportunity Fund)
External Funding from Faculty Opportunity Fund Awardees

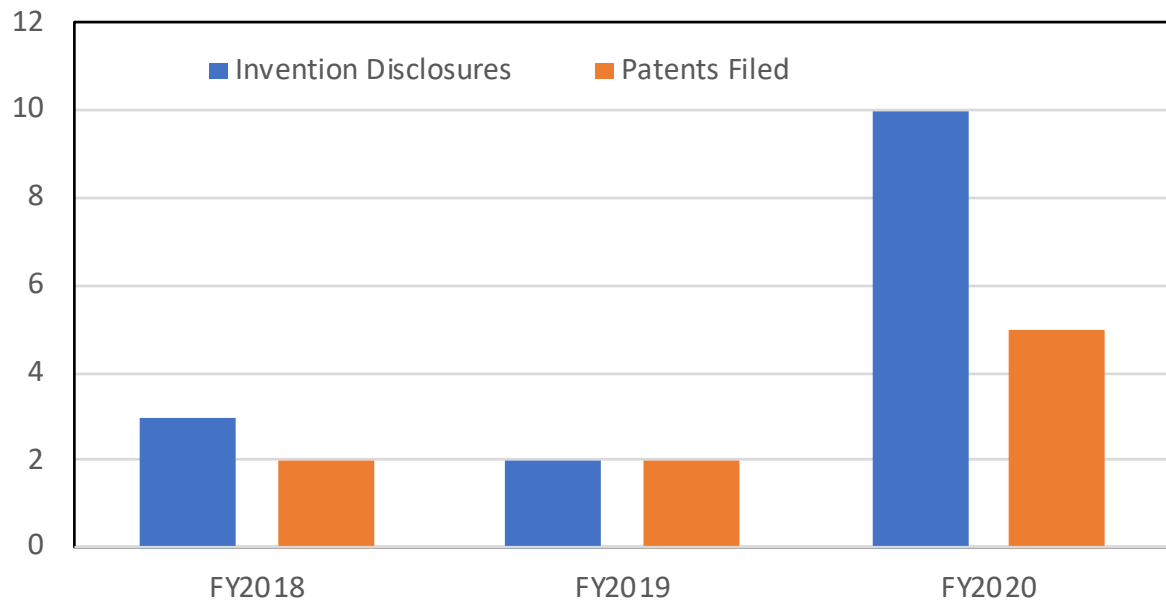


External Partnerships and Intellectual Property

Agreement Type	FY 2019	FY 2020
Non-Grant Agreements*	17 (\$3,392,903)	23 (\$1,757,311)
Non-Disclosure Agreements (NDA)/CDA	2	8
Material Transfer Agreement (MTA)	13	8
Data Use Agreement (DUA)	5	6
Other	6	6
TOTAL	43	51

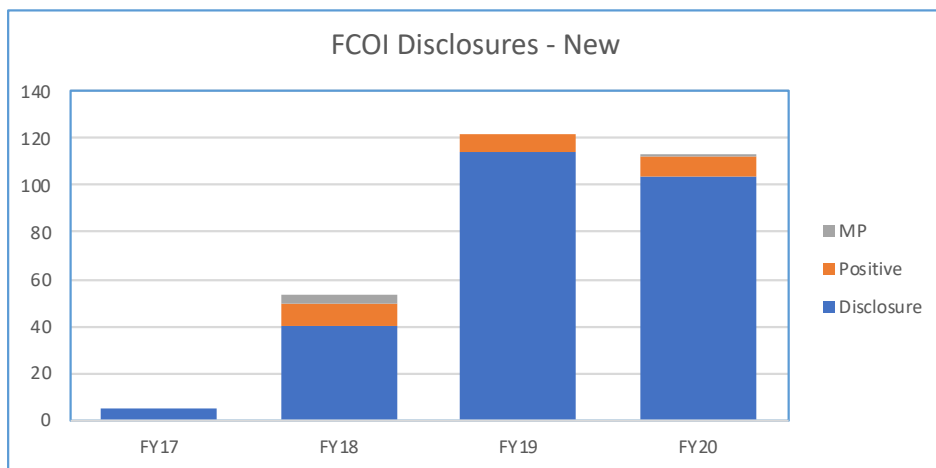
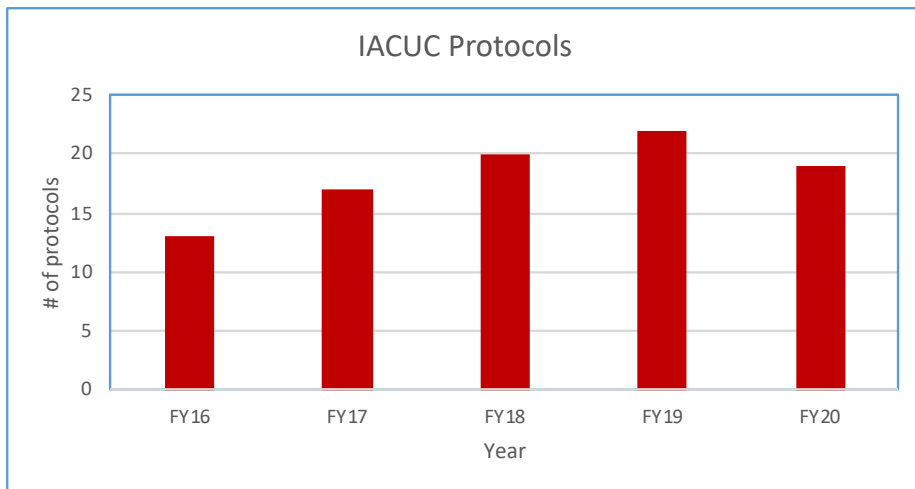
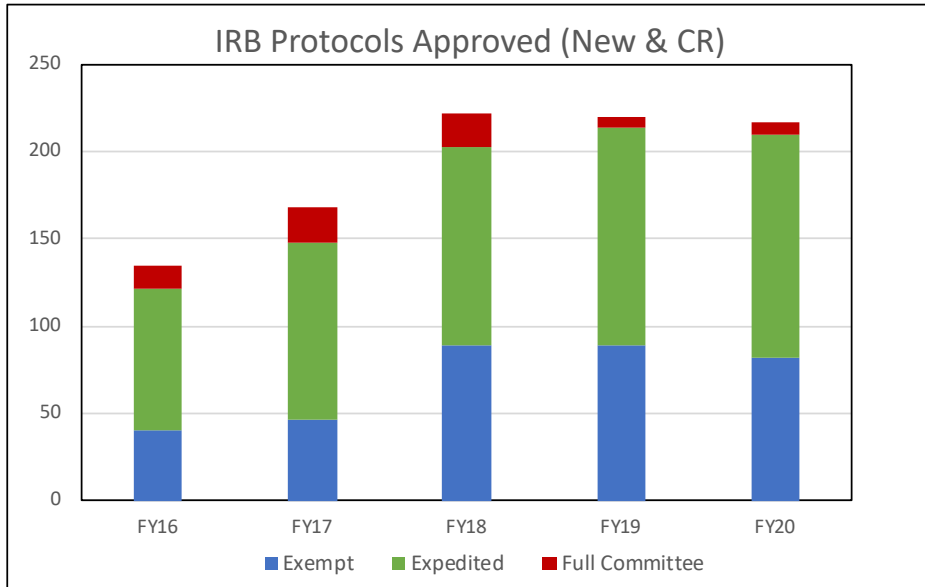
*Agreements with incoming funds to Chapman (e.g. sponsored research agreements, services agreements, and subaward agreements, etc.)

Intellectual Property



Patents Filed in FY2020

Title	Inventors	College/School
Detection of Pathogenic Bacteria through Antimicrobial Peptide-based Glass Fiber Filter Biosensor Platforms (Conversion to US application)	<ol style="list-style-type: none"> 1. Kamaljit Kaur 2. Hanieh Hossein-Nejad-Ariani 	School of Pharmacy
Targeting Primary Cilia with Nanoparticles (provisional application)	<ol style="list-style-type: none"> 1. Surya Nauli 2. Rajasekhar Pala 	School of Pharmacy
Heel Your Gait (provisional application)	<ol style="list-style-type: none"> 1. Marybeth Grant-Beuttler 2. Rahul Soangra 	Crean College of Health and Behavioral Sciences
Designing Peptide/Lipid-Associated Nucleic Acids (PLANAs) for nucleic acid delivery (provisional application)	<ol style="list-style-type: none"> 1. Hamidreza Montazeri Aliabadi 2. Keykavous Parang 3. Abdulaziz Alasmari 4. Ryley Hall 	School of Pharmacy
Condensed matter system with ideal diamagnetic response at room temperature (provisional application)	<ol style="list-style-type: none"> 1. Armen Gulian 2. Sara Chahid 3. Rajendra Dulal 4. Yasushi Kawashima 5. Serafim Teknowijoyo 	Schmid College of Science and Technology



FISCAL YEAR 19-20 AWARDS

Argyros School of Business and Economics

Economic Science Institute

Hillard Kaplan

National Institutes of Health

\$ 195,568

Arizona State University: Research Supplements to Promote Diversity (AG054442-01)

Hillard Kaplan

National Institutes of Health

\$382,250

Brain Atrophy, Cognitive Impairment and Alzheimer's in a Low CVD-Risk Population: Administrative Supplement for Amyloid Assay

Josef Tracy

Johns Hopkins University

\$10,000

Loss-framed Contracts to Increase Productivity in Real-Effort Tasks

Bart Wilson

The International Foundation for Research in Experimental Economics

\$ 13,819

Summer Scholars Program and High School Workshop

Bart Wilson

Thomas W. Smith Foundation

\$ 41,456

Summer Scholars Program and High School Workshop

Abel Winn

The International Foundation for Research in Experimental Economics

\$ 22,367

25th Annual Graduate Student Workshop in Experimental Economics

Attallah College of Educational Studies

Thompson Policy Institute

Don Cardinal

Regional Center of Orange County

\$23,596

Educational Expertise to RCOC and Consult with School Districts

Jeanne Carriere

University of California Irvine

\$125,000

Family and School Together

Audri Gomez

Regional Center of Orange County

\$17,000

RCOC Leadership Survey

Audri Gomez

Bill and Melinda Gates Foundation

\$417,230

Technical Assistance Support for California Special Education Residency Projects

Audri Gomez

Children's Hospital of Orange County

\$969,383

Technical Assistance Support for California Special Education Residency Projects

Crean College of Health and Behavioral Sciences

Jason Douglas

Loyola Marymount University - UCOP

\$16,664

A Community Based Approach to Tobacco Control

Susan Duff

National Institute on Disability, Independent Living, and Rehabilitation Research -

Thomas Jefferson University

\$11,046

Spinal Cord Injury Model Systems Program: Regional Spinal Cord Injury Center of the Delaware Valley

Susan Duff

American Physical Therapy Association

\$24,763

An Individualized Multimodal Intervention for Bone and Muscle Health in Pre-Adolescents with Cerebral Palsy: Promoting Healthy Transitions into Adulthood

Laura Glynn

University of California Irvine - National Institutes of Health

\$311,256

Project 3: Conte Center Project Renewal

Laura Glynn

University of California Irvine - National Institutes of Health

\$483,660

Project 2: Fragmented Early-Life Experiences, Aberrant Circuit Maturation, and Emotional Vulnerabilities

Marybeth Grant-Beuttler

Children's Hospital of Orange County

\$22,500

Longitudinal Assessment of Atypical TPP1 Enzyme Deficiency Patients

Tara Gruenewald

Johns Hopkins University – National Institutes of Health

\$20,218

Long-term Effects of a Community-based Volunteer Trial on Lifestyle Activity and Risk for Alzheimer's Disease

Mary Kennedy

California Scottish Rite Foundation

\$62,544

Scottish Rite Childhood Language Center

Jennifer Robinette

National Institutes of Health

\$273,891 (\$9,583 + \$25,474 + 238,834)

Neighborhood Adversity and Sensitivity to Stress: A gene X Environment Interaction Study

Joanne Smith

National Institutes of Health

\$130,162

The Influence of Brain Organization and Postural Behavior on Progression of Back Pain Symptoms in Young Adults

Brain Institute

Uri Maoz

John E. Fetzer Memorial Trust
\$43,915
Research Agreement: Book Project Funding

Fowler School of Law

Tamara Alexander

County of Riverside
\$75,509
Dispute Resolution Programs Act - Riverside

Thomas Bell

Crypto Investments Ltd.
\$68,300
Free Society Project

Wendy Seiden

The State Bar of California
\$37,160
Equal Access Fund IOLTA Formula Grant

Wendy Seiden

OC Community Foundation
\$60,000
Aitken Family Protection Clinic

Wendy Seiden

The State Bar of California
\$100,000
IOLTA Fund Grant

George Willis

Internal Revenue Service
\$44,100
IOLTA Fund Grant

Schmid College of Science

Douglas Fudge

National Science Foundation
\$28,000
Collaborative: RUI: Biogenesis and Evolution of Hagfish Slime and Slime Glands

Douglas Fudge

ALION Science and Technology

\$44,098

Douglas Fudge

Serco Inc.

\$136,862 (\$61,472 + \$75,390)

Gregory Goldsmith

Northern Arizona University – NASA

\$38,807

Testing How Plant Structure and Function Will Impact WUE and Water Stress Along Tropical Forest Transition Zones

Christopher Kim

National Science Foundation

\$9,600

REU-Site: Summer Undergraduate Research Fellowships in Earth and Environmental Sciences (SURFEES)

Andrew Lyon

National Institutes of Health

\$21,965

Platelet-Like Particles for Augmenting Hemostasis

Maduka Ogba

Pomona College – National Institutes of Health

\$46,000

Sulfur-Fluorine Exchange Reactions (SuFEx) toward Nitrogen-Based Sulfur(VI) Compounds

Cedric Owens

National Science Foundation

\$1,780

RUI: Nitrogenase and Friends: Uncovering How Diazotrophs Regulate and Maintain Nitrogenase Activity Under Unfavorable Environmental Conditions

Jerry LaRue

American Chemical Society

\$2,028

Hot Electron Chemistry on Transition Metal Coated Gold Nanoparticles

Anuradha Prakash

LT Food USA

\$1,151

Spray Dryer Trial

Anuradha Prakash

Msat Consulting

\$6,444 (\$1,694 + \$2,255 + \$2,495)

Msat Consulting Projects

Anuradha Prakash

Ninth Avenue Foods

\$4,295

Ninth Avenue Oat Milk and Almond Creamer

Anuradha Prakash

U.S. Department of Agriculture

\$ 142,893

Irradiation as an Alternative to Methyl Bromide Fumigation and DPA treatment of 'Granny Smith' Apples

Chelsea Parlett

National Science Foundation

\$46,000

Justin Dressel

National Science Foundation

\$ 107,000

NSF-BSF: Efficiently Modeling Continuous Quantum Measurements of High-Dimensional Multi-Qubit

**Center of Excellence in Earth Systems Modeling & Observations
(CEESMO)**

Emmanuel Dinnat

NASA

\$20,793

Improvement of Sea Surface Salinity Satellite Retrievals

Shenyue Jia

TreePeople

\$18,000

Developing a Map Viewer for Tree Canopy at Parcel Level for Los Angeles County

Institute for Quantum Studies

Armen Gulian

Office of Naval Research

\$174,359

Systematic Search for Very High-Temp Superconductivity in Carbon-Related Compounds, Including Materials via Nonequilibrium Phase Diagram Routes

Armen Gulian

Office of Naval Research

\$59,988

Simulation and Experimental Realization of Vector-Potential Sensors by Quasilegal Superconducting Objects

Armen Gulian

Office of Naval Research

\$85,000

Simulation and Experimental Realization of Vector-Potential Sensors by Quasilegal Superconducting Objects

Armen Gulian

Office of Naval Research

\$120,000

Expansion Proposal to the ONR Grant N00014-18-1-2636: Systematic Search for Very High-Temperature Superconductivity via Nonequilibrium Phase Diagram Routes

Jeff Tollaksen

John E. Fetzer Memorial Trust

\$45,000

Phase II of IQS Project for Fetzer-Franklin Fund

Matthew Leifer

Silicon Valley Community Foundation

\$10,350

Reasoning in a Quantum World

Office of Provost

Julye Bidmead

Shinnyo-en Foundation

\$53,000

Post-Undergraduate Fellowship Program

School of Pharmacy

Craig Cheetham

Kaiser Permanente Research

(\$5,488)

Moderate Hypertension in Pregnancy (MOHIP): Safety and Effectiveness of Treatment

Craig Cheetham

Kaiser Permanente Research

\$84,380

Moderate Hypertension in Pregnancy (MOHIP): Safety and Effectiveness of Treatment

Innokentiy Maslennikov

Nitto Avecia Pharma, Inc

\$4,085

Characterization of Samples Using Nuclear Magnetic Resonance (NMR) and Other Techniques

Hamidreza Montazeri-Aliabadi

PhRMA Foundation

\$100,000

Peptide/Lipid-Associated Nucleic Acids (PLANAs) for in Vivo Delivery of Nucleic Acids

Surya Nauli

Masimo Corporation

\$170,000

Mechanical Drugs: Harnessing Cancer Aggressiveness to Overcome Its Resistance

Surya Nauli

American Heart Association

\$200,000

Cilia and Aneurysms

Rennolds Ostrom

Thomas Jefferson University – National Institutes of Health

\$32,534

G Protein-Coupled Receptor Regulation in Airway Myocytes

Rennolds Ostrom

National Institutes of Health

\$309,926

Molecular Signal Transduction of cAMP Compartments

Hamidreza Montazeri-Aliabadi and Keykavous Parang

AJK BioPharmaceutical LLC

\$17,250

Design and Evaluation of Peptide-Based Platforms for Oligonucleotide Delivery

Keykavous Parang and Hamidreza Montazeri-Aliabadi

AJK BioPharmaceutical LLC

\$45,369

Design and Evaluation of Peptide-Based Platforms for Oligonucleotide Delivery

Keykavous Parang

AJK BioPharmaceutical LLC

\$90,738

Amendment to FE Service Agreement

Simin Rahighi

University of California Irvine

\$4,000

Research Facility Use Agreement

Ajay Sharma

Akrivista LLC

\$7,955

Further Evaluation of Anti-Inflammatory Properties of Ophthalmic Formulation A1 Using Human Corneal and Conjunctival Epithelial Cells

Rakesh Tiwari

AJK Biopharmaceutical LLC

\$30,000

Design, Synthesis, and Evaluation of Antibiotic-Cyclic Peptide Conjugates Against Multidrug-Resistant Bacterial Pathogens

Rakesh Tiwari

Aingeal Therapeutics

\$31,727

Development of a Lead Cyclic-PDZ-Enhancer Drug for Anxiety and Depression

Jennifer Totonchy

National Institutes of Health

\$319,647

Identifying Susceptibility Factors for KSHV Infection in Human Tonsil

Siu-Fun Wong

Oregon Health State University

\$25,000

SWOG NCORP Research Base

Siu-Fun Wong

Oregon Health and Science University

\$49,316 (24,658 + \$24,658)

SWOG Network Group Operations Center of the NCTN

Sun Yang

Amgen, Inc.

\$165,000

School of Pharmacy Fellowship Program

Wilkinson College of Arts, Humanities, and Social Sciences

Alexander Bay

The Japan Foundation Center for Global Partnership

\$ 49,960

Case Studies Japan: Research Trip to Japan for Interdisciplinary Scholars and Graduate Students

Charissa Threat

National Endowment for the Humanities

\$ 25,200

Searching for Colored Pin-Up Girls: Race, Gender, and Sexuality during World War II

Chris Bader

Pennsylvania State University – Lily Endowment, Inc.

\$ 19,248

Increasing the Content, Features and Outreach of the ARDA.com, 2017-2021

Lori Cox Han

American Political Science Association

\$ 25,050

Presidents and Executive Politics Biannual Conference