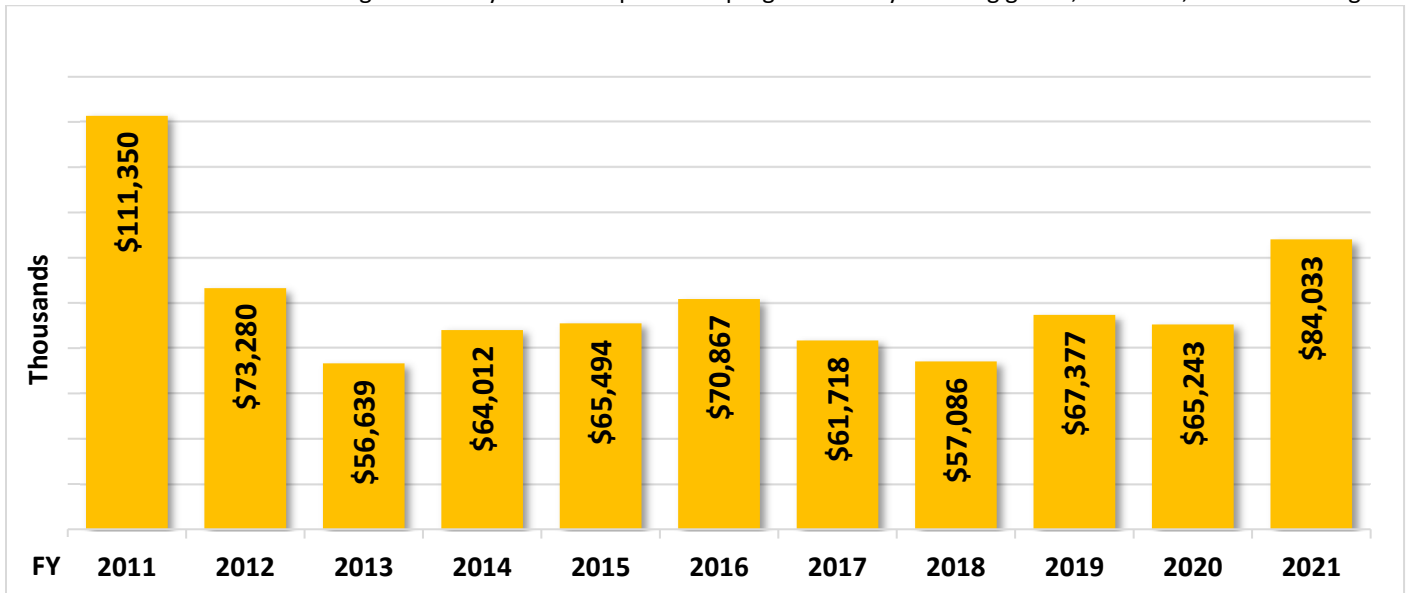


RCA ACTIVITY REPORT FY2021

NDSU EXTERNAL AWARD FUNDING AND HIGHER EDUCATION R&D EXPENDITURES

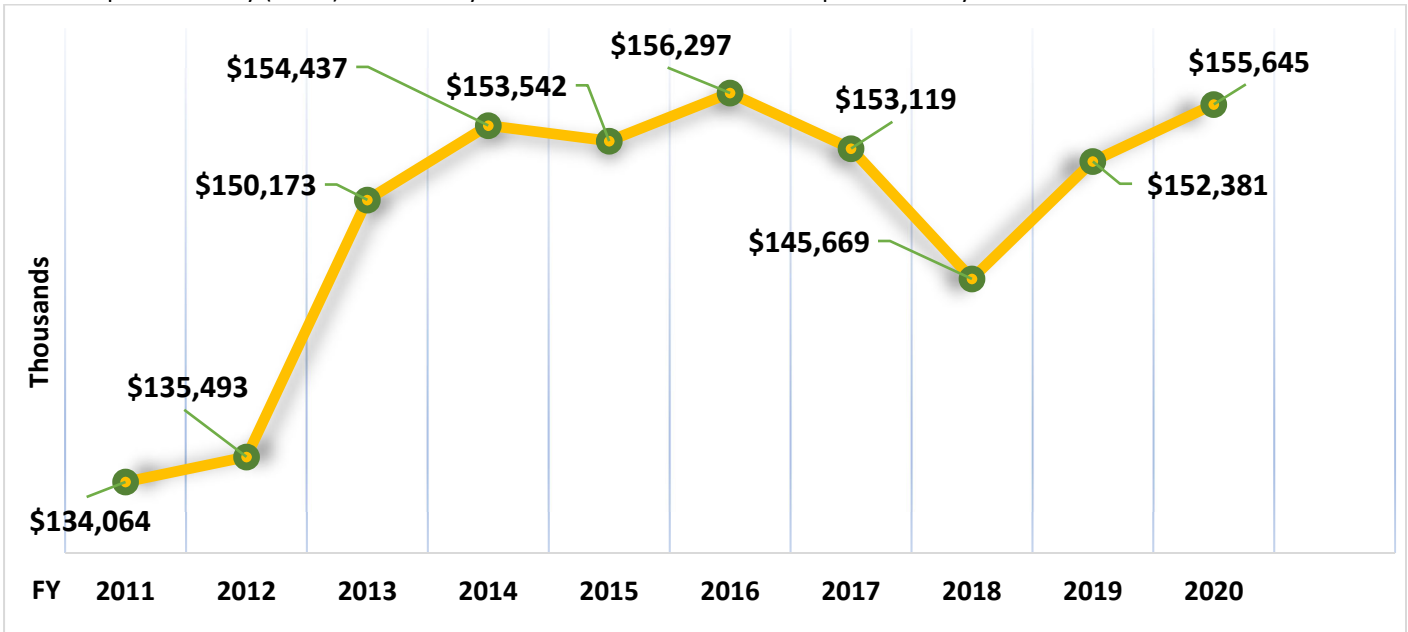
NDSU Awards Received

This data reflects external funding received by NDSU for sponsored program activity involving grants, contracts, and restricted gifts.



NDSU R&D Expenditures

R&D expenditure data is reported annually via the National Science Foundation Higher Education Research and Development Survey (HERD). This survey collects information on R&D expenditures by field of research and source of funds.

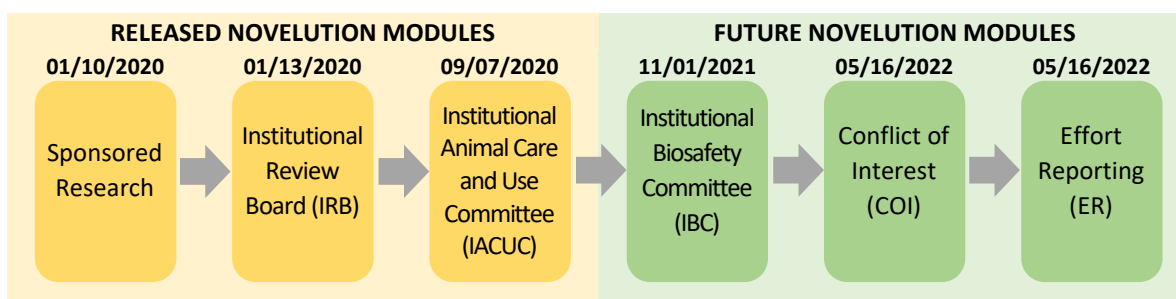


Notes: Between 2012 and 2013 the reporting methodology changed to include research appointment salaries not paid by grants. 2020 data has been accepted by NSF with publication anticipated late 2021.

RCA INITIATIVES AND PROGRAM SUPPORT

Novelution

Prior to the implementation of the Novelution System, all proposal, award, and compliance functions were paper-based and records were stored in multiple systems and databases without any comprehensive connections. Novelution’s release in 2020 coincided with the added limitations placed on NDSU by the pandemic. However, it was serendipitous that the new system allowed the RCA team to continue supporting NDSU researchers even while working remotely. Novelution is customized with intelligent integrated software modules that support many research and compliance administration processes. The first modules implemented were Grants & Contracts (sponsored research), IRB and IACUC. Modules for IBC, COI, and Effort Reporting are the next to be developed. Novelution integrates with Peoplesoft and is a strategic solutions partner with custom-built software that provides intelligent integration between modules.



Internal Funding Highlights

More than 85% of RCA’s appropriated operating budget supported campus research, scholarly activities, and programs including communications workshops; equipment repair, matching and purchase funding; travel awards; subscriptions; and proposal writing resources. Highlights include:

- Implemented new funding opportunity database (SPIN).
- Delivered weekly RCA Update newsletters featuring over 500 funding opportunities and coverage of NDSU research highlights.
- Awarded internal funding for faculty research development travel (with COVID conditions, only 9 travel awards were given for the year) and research support services (22 awards).
- Generated 24 articles and numerous social media posts highlighting work of NDSU faculty and students.

Mentorship

- Two faculty fellows, Rajani Ganesh-Pillai and Sam Markell provided faculty perspective and mentorship and facilitated 12 new faculty programming events and multiple research career sessions for early associate professors.

Workshops

- NIH R-Series Bootcamp
- Communicating Science Workshop
- Workshop for Health Professionals
- Six proposal development sessions and an NSF CAREER proposal program
- Meeting with the NSF Assistant Director and Head of the Social, Behavioral and Economic Sciences Directorate

Workshop Participation	
NSF SBE	50
NIH R-Series Bootcamp	34
Communicating Science Workshop	59
Workshops for Health Professionals	70
PDP	119
CAREER	33
TOTAL	365

Undergraduate Research Training and Development

- Conducted 2021 Virtual NDSU EXPLORE undergraduate research and creative activity symposium.
- Implemented a summer undergraduate research experience with faculty fellow Ying Huang that brought in 43 students to work on research projects across campus during the summer of 2021.
- Programs impacted 94 student participants.

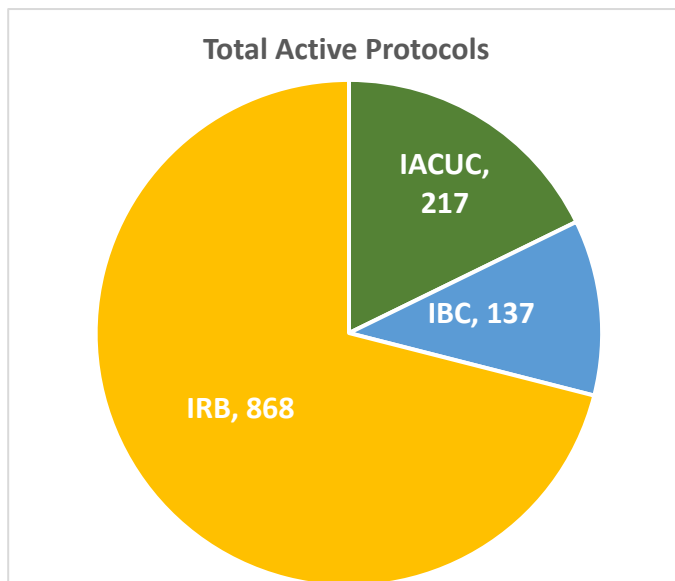
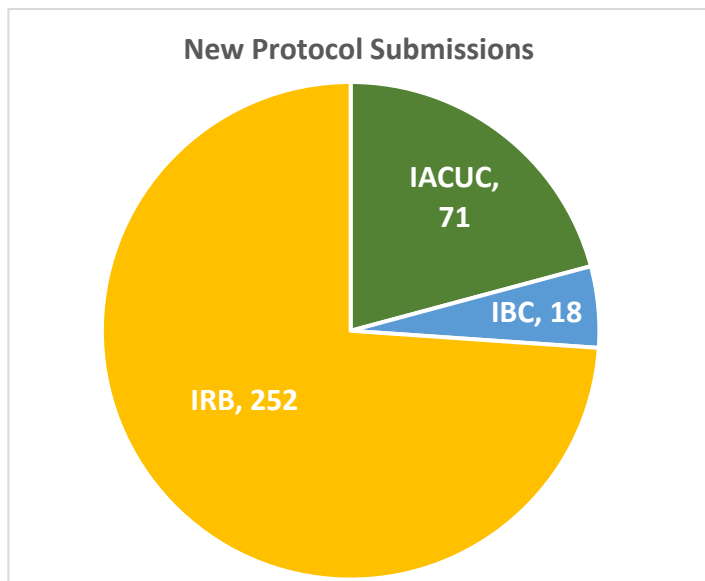
RCA Budget	
<i>Operating: Campus Support and Programs</i>	
Equipment Match/Repair/Purchases	274,154
Faculty Cohort Programs	1,448
Faculty Fellows	21,621
Misc. Campus Support	49,060
Proposal Assistance/Workshops	34,400
<i>Research Core Operations</i>	
EML	145,858
MERC and R2 Operating	14,045
UAS Operating	3,368
CBF Technician Partial Salary	21,589
Research Support Services	34,797
Travel Awards	7,976
Undergraduate Res Symp and Resources	1,868
Total Campus Support	610,184
<i>Operating: RCA Business Units</i>	
	83,847
<i>Salary Budget: RCA</i>	2,310,481
<i>Salary Budget: EML</i>	146,652
Total Budget	\$3,151,164

RCA CENTRAL SERVICES AND OPERATIONS ACTIVITY

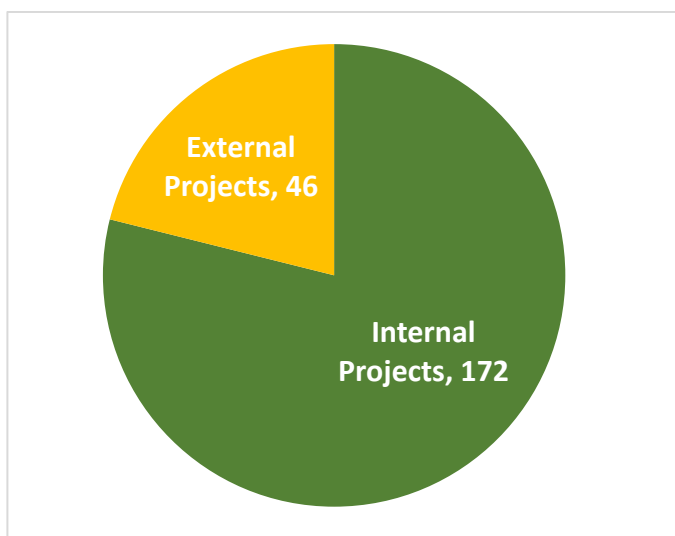
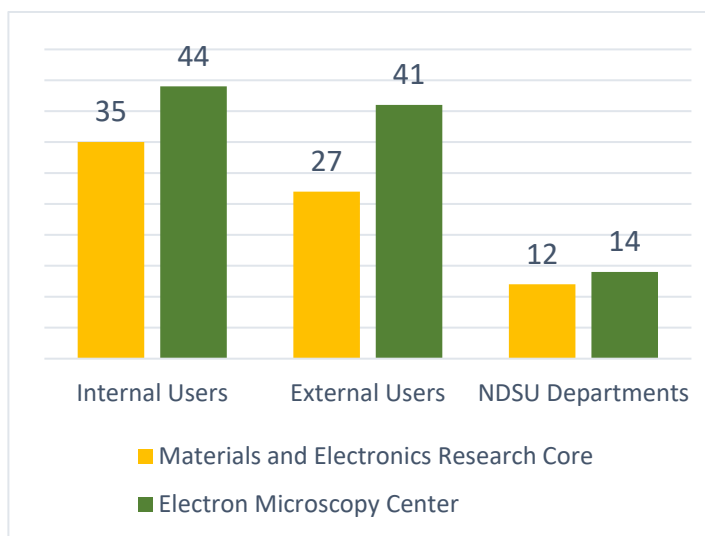
Sponsored Programs

PROPOSALS PROCESSED		AWARDS RECEIVED	
Amounts Requested by Sponsor Type		Amounts Received by Sponsor Type	
Commodities	\$ 9,728,591	Commodities	\$ 6,985,129
Federal	\$ 213,971,246	Federal	\$ 66,092,839
Foundation/Non-Profit	\$ 34,047,027	Foundation/Non-Profit	\$ 4,517,457
Other	\$ 92,140	Other	\$ 77,614
Other Gov't Agencies	\$ 3,020,087	Other Gov't Agencies	\$ 1,179,176
Private	\$ 2,497,433	Private	\$ 1,170,588
State	\$ 24,903,249	State	\$ 4,010,437
Total	\$ 288,259,773	Total	\$ 84,033,240

Research and Compliance Protocols

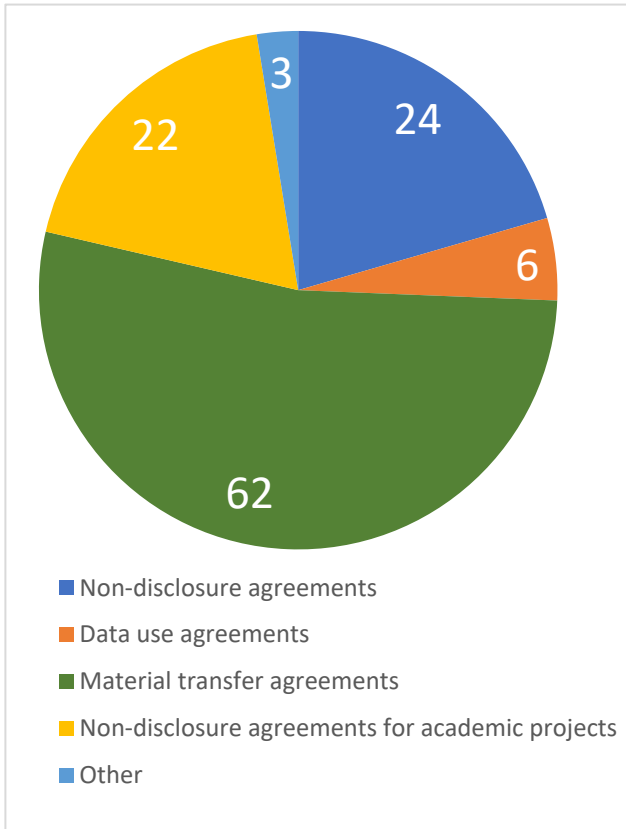


Core Facilities Users

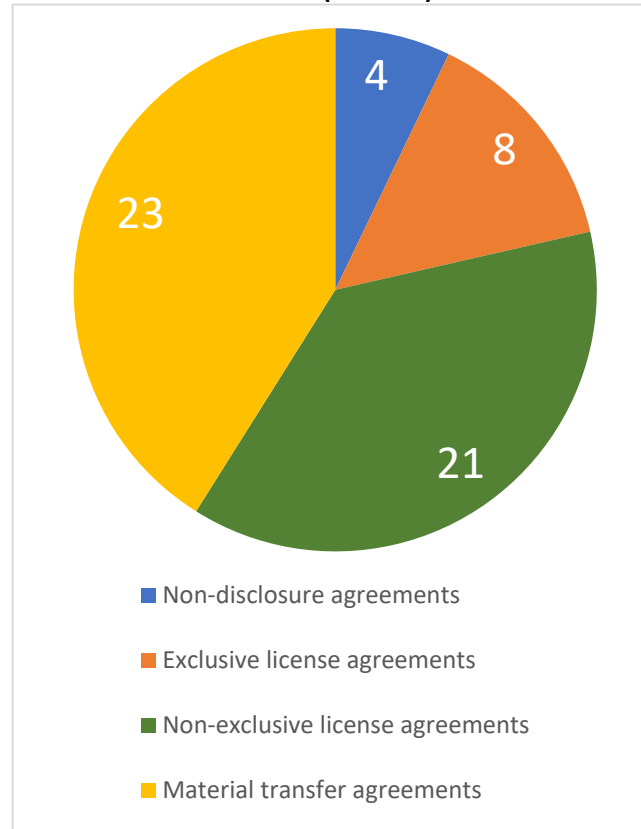


Industry-specific Agreements and Intellectual Property

NDSU: Industry Agreements Executed (117 total)



NDSU RESEARCH FOUNDATION: Agreements Executed (56 total)



29 invention disclosures submitted

PROTECTIONS FILED

Trademark

KoolKat™ Katusra Tree (pending)

Four Plant Variety Protections

Including: 'ND Noreen' Hard Red Winter Wheat, 'ND Frohberg' Hard Red Spring Wheat, and 'ND Dawn' Yellow Pea

19 Patents including divisional, continuation, continuation in part, and provisional applications

Solar energy
 Cancer identification
 Coatings and Anti-fouling materials
 Protein-based plastics
 Material composites
 Vaccines
 Renewable and sustainable materials