



## **INTRODUCTION**

Reviewing the past year's activities serves as a means to reflect on the Foundation's programming, both successes and areas for improvement. It also provides a tool to capture progress made each year in meeting goals outlined in our strategic plan. It is designed as a means of providing the Board of Directors with an annual overview as well as serving the equally important purpose of reviewing development of the portfolios over time. Although written as an internal document, the Foundation strives to create transparency in our processes with our grantees and with the field as a whole.

This report concentrates on activities during 2017 to summarize the Foundation's competitive grant portfolios. With the mission, vision and values as the driving force, staff has continued to refine decision-making, focusing on areas where our support is distinguished from other funding organizations. The stabilization of these portfolios has provided the opportunity to better understand how Foundation funding can be leveraged.

The past year was notable for hallmark achievements, some of which were years in the making. The announcement and groundbreaking of the Craig H. Neilsen Rehabilitation Hospital at the University of Utah represents the most significant gift in Foundation history. The Foundation's contribution to this project extends well beyond financial support, with a goal to elevate rehabilitation at the University while emphasizing Craig's passion for architecture in the design of the building. The opening of the Craig H. Neilsen Auditorium at the 2 Mississippi Museums was also a moment of pride, knowing that the museums capture the history of the civil rights movement in an effort to promote a better understanding of the strength and sacrifices made by the people in Mississippi. Although the Foundation does not typically invest in capital gifts, the lasting importance of these two contributions is significant.

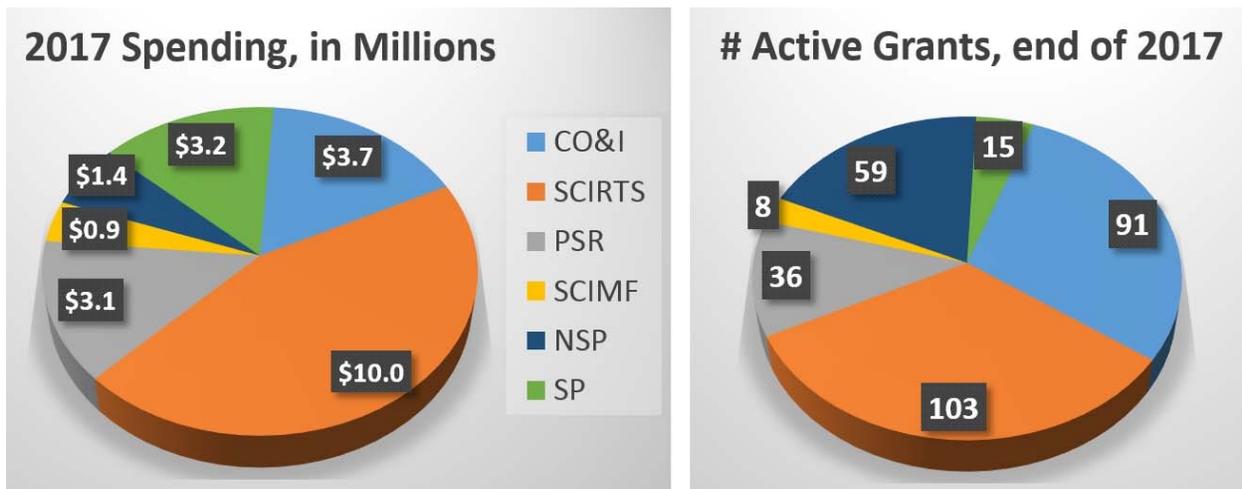
Interviews with external observers provided specific examples of successes and future opportunities but, perhaps more importantly, emphasized the Foundation's broader influence and sincere gratitude for its ongoing commitment to the field. When asked about the Foundation's impact, Dr. Steven Kirshblum observed: "I see the Foundation as being both the bus (vehicle) for movement of the field forward, as well as at times also serving as the driver of that bus...The Foundation is open to being innovative with its thinking, taking chances by creating new paths for institutions and researchers to develop their ideas." His comments speak directly to our institutional values and provide

an inspiring metaphor and encouragement to continue to be creative in working to meet such high expectations.

## **YEAR IN REVIEW**

### **Current Grant Overview**

At the end of 2017, 312 grants were active across the Foundation's portfolios. Spending totaling \$22.3 million is shown, by portfolio, on a cash basis for 2017.



Whereas spending for SCIRTS and PSR constitutes 60% of this year's total, grant numbers in non-research portfolios outnumber those in the research programs. CO&I, SCIMF and NSP together manage 158 active grants, while there are 139 active research grants in SCIRTS and PSR.

### **SCI RESEARCH ON THE TRANSLATIONAL SPECTRUM (SCIRTS)**

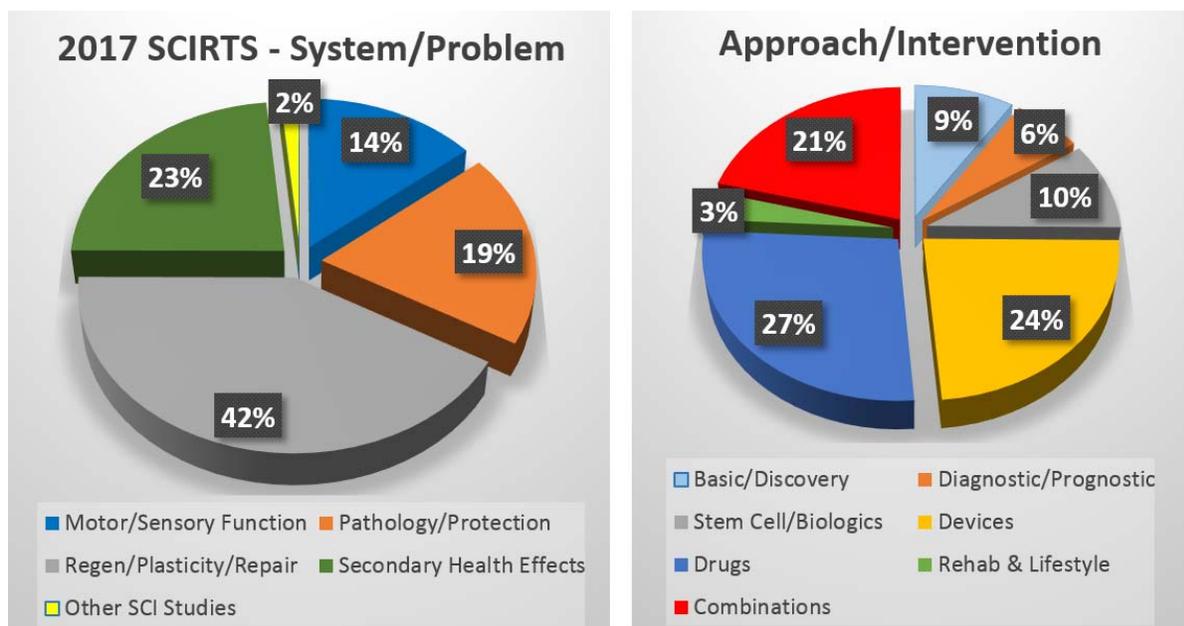
2017 Funded Grants				
# Postdoctoral Fellowships	# Pilot Research Grants	# Senior Research Grants	# Awards / # Applications (# LOIs)	2017 Accrual
9	17	5	31 / 78 (194)	\$9,340,710

Thirty-one SCIRTS grants were awarded in 2017, just surpassing the 30 grants per cycle awarded in each of the two previous years. The Board of Directors approved 32 grants, two of which were simultaneously under consideration for Department of

Defense (DoD) funding. One application was eventually withdrawn when funding by DoD was confirmed and another was reduced in scope to eliminate overlap.

Two observations are worth noting: First, although the number of 2017 applications and grants awarded is consistent with recent cycles, 226 LOIs were received for the 2018 cycle, representing a 17% increase. Second, program staff identified that clinical studies are often delayed, and their success jeopardized, by administrative issues. To address this, staff worked together to create a clinical resource guide that contains links to sites that list commonly used outcome measures in SCI research, safety monitoring standards and advice for study initiation. The goal is that investigators will be well-prepared, with all necessary supporting materials and training in place prior to study initiation.

In 2016, a new coding system was introduced that was developed to enhance communication between the major funders of SCI research. Using this system, specific aspects of SCI dysfunction (System/Problem) and approaches being tested to restore function (Approach/Intervention) are reported below. The percentages shown reflect the proportion of the \$9.3 million in SCIRTS funding in each tracking category. Identifying the proportional funding on different types of interventional strategies (e.g., cells, drugs, devices or rehabilitation) and progress over time will help all funders refine their funding strategies as needed.



A sharp increase was seen in the Foundation’s funding of studies investigating the effectiveness of implanted or surface stimulation. Roughly one third of the SCIRTS grants funded this year used stimulation alone or in combination with cell or

rehabilitation strategies. This underscores the importance of this type of technology in the SCI field and the recent notable success of clinical stimulation studies in improving function. Examples of grants that were completed successfully this year include development of sophisticated imaging techniques, measuring blood flow and regulating blood pressure after SCI, and developing methods to effectively share and re-use data across studies. Imaging grants ranged from observing brain activity during walking in animals to improving clinical MRI image analysis to help detect areas of nerve damage versus swelling to better predict functional outcomes.

### **PSYCHOSOCIAL RESEARCH (PSR)**

<b>Cycle</b>	<b># Postdoctoral Fellowships</b>	<b># Pilot Research Grants</b>	<b># Studies &amp; Demonstration Projects</b>	<b># Awards / # Applications (# LOIs)</b>	<b>Accrual</b>
<b>2017</b>	1	7	9	17 / 32 (64)	\$5,008,474
<b>2018</b>	4	8	7	19 / 34 (60)	\$4,984,803

The PSR portfolio was recently restructured and is moving in positive directions since the expansion of grant terms and funding amounts implemented in 2016. It is noteworthy that the number of new grants awarded in 2017 and 2018 is similar. The stable stream of submissions suggests growing awareness and interest because the number of active ongoing PSR grants has grown (36 at the end of 2017) and grantees are not eligible to submit new PSR applications until their current project is completed.

Attracting Postdoctoral Fellowship applicants has been a challenge in PSR. Historically, the number and quality of applications has varied, with only one or two trainees ultimately recommended for funding each year. During this year’s cycle, the Foundation received the most Fellowship LOIs to date and approved four grants for 2018 funding. These projects explore important topics including physical activity, caregiver support, and use of various technologies. Of equal importance, all four fellows have strong mentors and training plans to support their early career development in the field of SCI.

PSR research projects completed in 2017 included development of apps to promote self-care practices after SCI and projects that identify and address environmental risk factors and promote accessibility.

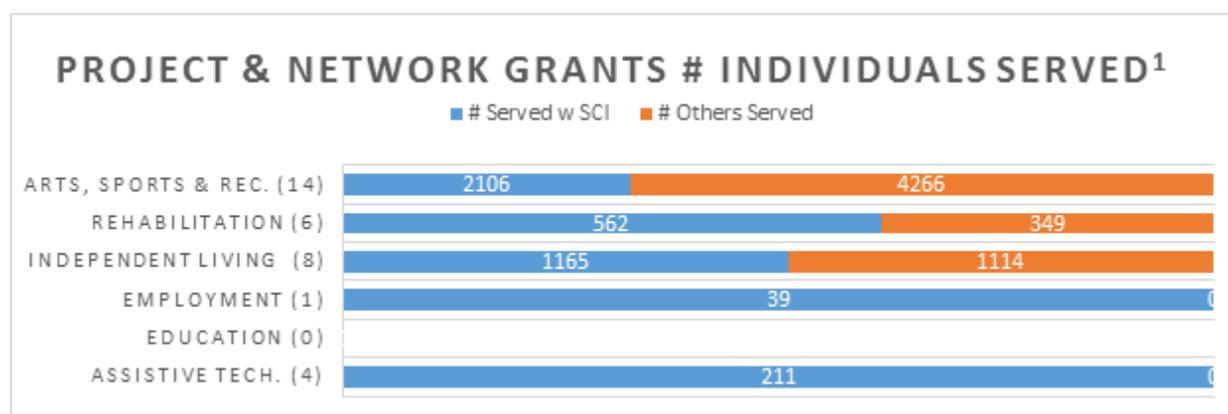
## CREATING OPPORTUNITY & INDEPENDENCE (CO&I)

2017 Funded Grants		
Category	# Awards / # Applications	2017 Accrual
Project Grants	41 / 63 (116 LOIs)	\$2,345,645
Sustainable Impact Projects (invitation only)	2 / 2 (2 invited FGAs)	\$599,989
Total Accrual		\$2,945,634

The CO&I portfolio ranks a close second among Foundation portfolios in number of grants but these shorter grants undergo more rapid turnover. In total, 44 new CO&I grants were approved with 43 awarded in 2017.

Employment continues to be a critical issue for the SCI community. In an effort to address this issue, the two SIP grants cultivated and ultimately invited to apply in 2017 were focused on employment. Both of these SIP applicants included strong partnerships and distinctly unique approaches to employment readiness with the potential for replicability on a broad scale in both urban and rural settings. Both were funded, as was one employment-related Project Grant.

Starting in 2016, grantees were asked to report at the end of the grant period how many individuals with SCI were served as well as the overall number served by their program. The figure below represents 33 completed grants and shows that 4,100 individuals with spinal cord injury/disorders (SCI/D) were beneficiaries of the Foundation's support. In two areas of the portfolio, Assistive Technology and Employment, 100% of participants were consumers with SCI/D.



<sup>1</sup>Grants initiated in 2016 and closed by the end of 2017.

Numbers in parentheses indicate the # grants in the respective category.

The Foundation's mission and values are the yardstick for ensuring each portfolio's goals reflect priority areas that are based on the needs of the SCI community. The distribution of the 2017 Project Grants among the six CO&I areas of focus are indicated in the following figure.



Refinement of these categories to ensure that they accurately reflect how Foundation funding is addressing gaps in services has been central to programmatic decision-making over the past two years. In 2017, staff focused on the Education category, making it clear this category focuses on promoting instructional programs that enhance vocational readiness and/or advance academic options. Applications previously submitted in this category but more relevant to other areas are now being redirected. Education will concentrate on projects/programs to promote the return to school/university, educational readiness, literacy interventions, GED courses and other teaching options.

Redefinition of the Assistive Technology category for the 2017 cycle succeeded in distinguishing applications that use technologies to help individuals with SCI navigate a broad spectrum of barriers. The Foundation's investments in SCIRTS and CO&I provide cross-portfolio support in this area, one focusing on development/testing and the other on implementation of technologies for use by people with SCI. The CO&I portfolio focuses on projects beyond the research stage that aim to improve device usage and accessibility. Three of the four funded Project Grants in this category will make robotic and stimulation systems more usable through new voice or wireless control technology.

## SCI MEDICINE FELLOWSHIPS (SCIMF)

2017-2018 Academic Year		2018-2019 Academic Year
# Fellowships / # Institutions	2017 Accrual	# Fellowships Requested / # Institution Applicants
10 fellows / 8 sites	\$898,666	12 fellows <sup>1</sup> / 9 sites

<sup>1</sup>One site requested and was approved for 1/3 support of a fellowship position.

The SCIMF portfolio has continued to grow through a refined application process and targeted efforts to increase awareness of this funding opportunity. During the overlapping cycles this year, new institutions were invited to recruit fellows and top performing sites successfully recruited multiple fellows per year. Record numbers of fellowships were funded in 2017 and are being recruited for 2018.

In addition, 10 Neilsen Fellows at eight sites from the SCIMF 2016 cycle completed their year-long training in June 2017. This cohort represented the successful recruitment and training of two Foundation-funded trainees at two different institutions. The Association of Academic Physiatrists, with support from the Foundation, continued to increase the number of medical students given early exposure to SCI care and research.

## NEILSEN SCHOLARSHIP PROGRAM (NSP)

2017 Funded Grants			
# Students / # Schools	Scholarships	Supplemental Support	Extension
17 students / 8 sites	\$1,066,543	\$624,004	\$8,790
Total Accrual			\$1,699,337

This year marked a turning point for the Neilsen Scholarship Program. Staff collaborated to leverage the knowledge gained in the first three years of the program. The NSP ran on parallel tracks this year, both implementing 2017 funding as originally designed and initiating new guidelines and selection processes for the 2018-2019 academic year.

Although the primary goal did not change, the program was able to expand its footprint across the country as well as develop an application structure that included a

competitive process. In addition, new budgetary guidelines for both the Scholarship and Supplemental Support Funds (SSF) were developed to standardize and simplify financial planning.

<b>New Guidelines for Tuition and Fees</b>		
Type of College/University	In-State/Resident	Out-of-State/Non-Resident
Public	100%	100% of In-State Tuition + 25%
Private	Up to 50%	Up to 50%

Provision of supplemental support sets the NSP apart from other scholarship programs because it eliminates barriers to academic success that are specific to students with SCI. The new budget guidelines define three distinct areas of support: 1) Basic; 2) Housing; and 3) Personal Care Assistance. Basic allows for up to \$6,000/year to cover books, supplies, board, assistive technology, transportation, child care, etc. Housing allowed for up to \$10,000/year at four-year schools and up to \$5,000/year at two-year colleges. If personal care assistance is needed, additional support of up to \$15,000/year may be requested.

Criteria for school selection were also expanded to require a comprehensive plan to market the scholarships to prospective students. This grew out of a goal to elevate the conversation around accessibility on campus. Of the 50 schools initially identified as potential applicants, 25 were invited to apply and 18 applications were received. The 2018 NSP cohort includes five schools new to the program and six that have previously participated.

“An investment in next generation leaders who will impact the field in ways we may not be able to imagine.”

--Dr. Mary Jane Mulcahey