

ARTICLE

Reissue: A Decade of FUN: The First Ten Years of the Faculty for Undergraduate Neuroscience.

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The year 2021 marks the 30th Anniversary of the founding of the Faculty for Undergraduate Neuroscience (FUN). Within the first ten years of FUN's existence, the organization grew from a group of 67 individuals committed to undergraduate education in the neurosciences to over 300 members. FUN established productive partnerships with the Society for Neuroscience and the Association of Neuroscience Departments and Programs. FUN launched numerous projects to enhance the experience of undergraduates in the classroom and in the laboratory. FUN established a Travel Award Program that enabled undergraduates to attend the Annual Meeting of the Society for Neuroscience to present research posters on the floor of the meeting. Subsequently, undergraduate students were invited to present posters at the annual FUN Social. The listserv FUNnet was created to enable communication among FUN members. Workshops

designed to enhance curricular development and laboratory-based experiences were begun in 1995 and continued every three years thereafter. Conversations to create regional conferences similar to the NorthEast Under/graduate Research Organization for Neuroscience (NEURON) conference were facilitated at the 2001 FUN Workshop. Efforts to improve National Institutes of Health funding for undergraduate colleges and universities were launched. Because of the dedication of FUN members, the first ten years of FUN's existence were filled with energetic innovations that significantly enhanced the education of undergraduate neuroscience students.

Key words: history; neuroscience education curricula; regional meetings; student travel awards; undergraduate neuroscience education; undergraduate poster session

In the fall of 1991, the Society for Neuroscience was celebrating its 21st anniversary and the neuroscience community in the United States had just embarked on an intense period of scientific investigation, education, and public discourse in "The Decade of the Brain." Within the community of neuroscience educators, however, it was becoming clear that a network for undergraduate faculty invested in educating future generations of neuroscientists was going to be necessary if the energy of this historic period was going to be tapped to enhance the undergraduate educational experience. Despite the fact that curricula in undergraduate institutions had included courses in neurobiology and physiological psychology for decades, no organization with a mission to specifically deal with the needs of undergraduate neuroscience educators was in existence. This article focuses on the events that led to the creation and the growth over its first ten years of Faculty for Undergraduate Neuroscience, the organization born of these needs.

A conversation between Sally Frutiger at Denison University, Stephen George at Amherst College, Dennison Smith at Oberlin College, and Julio Ramirez at Davidson College led to the proposal of a "Social" for neuroscientists interested in educating undergraduate students at the 1991 Annual Meeting of the Society for Neuroscience in New Orleans, Louisiana. Stephen George is to be applauded for his excellent organizational and political skills that led to the Society's decision to sponsor this inaugural meeting. During the spring of 1991, while Ramirez was on sabbatical in Patricia Goldman-Rakic's laboratory at Yale University, Ramirez and Goldman-Rakic had several discussions about

the role of the undergraduate experience in neuroscience training. Remarkably, in addition to their dedication to research and obvious talent three of the graduate students in Goldman-Rakic's lab at the time shared one other common characteristic: they were all graduates of small liberal arts colleges – Davidson College, Oberlin College, and Smith College. Indeed, Goldman-Rakic herself was a graduate of Vassar College. Ramirez explored the idea with Goldman-Rakic of creating an organization supporting the needs of professors committed to educating undergraduate neuroscience students. As a former President of the Society for Neuroscience, Goldman-Rakic's insights were particularly helpful and her enthusiasm for the project provided even more momentum to launch this organization. During the summer of 1991, Ramirez raised the possibility of creating such an organization with Frutiger, George, and Smith; they wholeheartedly supported the idea. By summer's end, the newly formed Steering Committee compiled a list of faculty who might be interested in matters of undergraduate education, mailed out the invitations, and encouraged colleagues to spread the news.

On the night of the Social in New Orleans, November 13, 1991, the Steering Committee members had their share of pre-Social jitters as they waited to see if anyone was going to attend. Much to the pleasure of the organizers, 67 individuals arrived for the Social and energetically embraced the idea of creating an organization to represent the needs and concerns of faculty teaching undergraduate neuroscience. A few individuals raised the idea that the Society for Neuroscience should create a committee to deal with our community's concerns (a

Please complete the following form and return to:

Sally Frutiger
 Psychology Department
 Denison University
 Granville, OH 43023

Member Response Form

Name _____

Address _____

Telephone/Bitnet # _____

Please rank order your preference for each of the following potential names for our new organization (1= most preferred to 4= least preferred):

- _____ League for Undergraduate Research in Neuroscience (**LURN**)
- _____ League for Education and Research in Neuroscience (**LEARN**)
- _____ Faculty for Undergraduate Neuroscience (**FUN**)
- _____ Resources for Undergraduate Neuroscience (**RUN**)

Members of the original Executive Committee have a strong commitment to broad membership involvement in all aspects of organizational activities. Diversity of ideas and contributions will make us a strong, diverse, and creative organization. Please indicate which of the following activities you would like to be involved in:

- A) Creation of a newsletter _____
- B) Neuroscience faculty development:
 - 1) Creation of a directory of neuroscience laboratory exercises and resources _____
 - 2) Establishment of an undergraduate teaching award _____
 - 3) Establishment of a travel award for faculty at institutions with no travel support _____
 - 4) Investigation of grant opportunities to fund regional undergraduate neuroscience faculty development workshops _____
- C) Establishment of a travel award for undergraduate presenting authors to annual Society for Neuroscience Meetings _____

Please indicate on the back of this form any additional ideas you may have for organizational activities or special areas of concern to undergraduate neuroscience education and research which should be addressed by the organization. Also, please list the names and addresses of colleagues who may not be aware of this new organization but who may be interested in membership.

Figure 1. Survey form designed to collect information for the creation of the new organization's name and future direction.

concern that was again expressed by several members a few years later), but the consensus at the meeting was that an independent organization would be the most effective way of getting our needs met in a timely fashion. One of the most memorable discussions at the inaugural meeting had to do with naming this fledgling group. Several options were suggested including: League for Undergraduate Research in Neuroscience, League for Education and Research in Neuroscience, and Resources for Undergraduate Neuroscience. As the discussion became animated, W. Jeffrey Wilson from Indiana-Purdue University suggested a name that produced an audible groan coming from one Steering Committee member, who will remain unnamed though his culinary tastes are known to focus on Cuban cuisine. W. J. Wilson's suggestion that the group be named Faculty for Undergraduate Neuroscience (FUN) was the overwhelming winner when a vote was conducted early in the spring of 1992. As Figure 1 illustrates, along with the voting for this organization's name, the Steering Committee also collected information on a number of items that would eventually mold the identity of the group.

By 1992, the newly-named Executive Committee was expanded to include Gary Dunbar from Central Michigan University in addition to the original Committee members, Frutiger, George, Smith, and Ramirez. The survey from the spring had been analyzed and FUN's identity began to solidify; the major objectives for FUN were laid out by the membership:

- A) The establishment of a Travel Award to support travel to Society for Neuroscience Annual Meetings by outstanding undergraduate neuroscience students.
- B) The establishment of a Society for Neuroscience Award for Excellence in Undergraduate Teaching.
- C) The establishment of a Travel Award for faculty from institutions with no travel support.
- D) The creation of a newsletter highlighting undergraduate teaching.
- E) The development of a mechanism for supporting regional faculty development workshops for neuroscience faculty from primarily undergraduate colleges and universities.

During the fall and in his capacity as Chair of the Executive Committee, Ramirez contacted Joseph Coyle, President of the Society for Neuroscience, and James Blankenship, President of the Association of Neuroscience Departments and Programs, to inform them of the existence of FUN and to invite them to the Second Annual FUN Meeting in Anaheim, California. Both President Coyle and President Blankenship enthusiastically accepted FUN's invitation, attended the Social, and encouraged further interactions between our respective organizations. The members of the Executive Committee were delighted to see the warm reception from Presidents Coyle and Blankenship. President Coyle subsequently informed the Society for Neuroscience Council of FUN's existence. As part of FUN's unveiling at the Anaheim meeting, Ramirez, Smith, and Dunbar requested to meet with the Society's Education Committee on October 26 at which FUN announced the

rationale behind FUN's founding and its major goals. FUN's Executive Committee members also invited the Society to partner with FUN in nurturing and promoting undergraduate neuroscience education. The document shared at the Education Committee meeting served as the basis for FUN's Mission Statement, which was approved by the membership in 1993.

In early December, President Blankenship invited FUN to collaborate with the Association of Neuroscience Departments and Programs on several projects, including presenting a symposium on undergraduate neuroscience education at the Association's spring meeting and coordinating the undergraduate component of the Neuroscience Training Programs of North America. The establishment of a working relationship with the Association was fortuitously timed since the organization had made a decision prior to the 1992 meeting to eliminate undergraduate programs from the training guide; with FUN's encouragement President Blankenship rescinded the earlier decision.

Perhaps one of the most important events to occur at FUN's Second Annual Meeting in Anaheim was the presentation of the first FUN Undergraduate Travel Award. The possibility of recognizing outstanding undergraduate research emerged as a major objective from FUN's membership during the first year. Under the energetic and careful guidance of Dunbar, a program for recognizing undergraduates at the FUN Annual Meeting was constructed and implemented. Indeed, at the Anaheim meeting Dunbar announced that Axon Instruments (FUN's first corporate sponsor) and FUN's members contributed over \$300 for this first award. After extensive deliberation, the Travel Award Committee awarded the first Travel Award to Nan Steinbronn from Indiana-Purdue University. Her poster presentation was titled, "Differences in spatial and visual working memory performance of rats in a phi-maze" and her research was supervised by W. J. Wilson. The Travel Award winners for subsequent years are presented in Table 1; it is noteworthy that the majority of the award winners have pursued post-baccalaureate studies in health-science fields, including neuroscience and medicine.

In 1993 the Executive Committee was reorganized to prepare the way for an application to the Internal Revenue Service for non-profit, tax-exempt status. The Committee structure was formulated as follows: President, President-Elect, Past-President, Secretary, Treasurer, and Councilors (Table 2 summarizes FUN's leadership over the first decade). During the spring, FUN delivered on its agreement with Association of Neuroscience Departments and Programs and sponsored a symposium on the status of undergraduate education to participate at the Association's "Spring Meeting." Given the surprise and enthusiastic response, it became evident many graduate professors who attended the meeting were unaware that neuroscience programs were being designed and implemented at the undergraduate level. After a discussion between FUN Executive Committee members and the Association's Executive Committee at the spring meeting, the Executive Committee of the Association invited FUN to participate in

future Executive Committee meetings to ensure open lines of communication between the two organizations.

Based on the survey that had been taken in the spring of 1992 and on the statement that was presented to the Education Committee of the Society for Neuroscience, FUN's Mission Statement was crafted by Ramirez, approved by the Executive Committee, and subsequently adopted by

the membership – with the understanding that the mission statement is a living document that would evolve with the community. W. J. Wilson spearheaded in 1993 two particularly important contributions to FUN's identity and its ability to communicate: FUN's logo and FUNnet. W. J. Wilson created a highly recognizable logo symbolizing FUN as a building-block facilitating the creation of future

Faculty for Undergraduate Neuroscience Undergraduate Travel Award Winners

	Name	School	Mentor
1992	Nan Steinbronn	Indiana-Purdue University	W. Jeffrey Wilson
1993	Catherine L. Clarke	Oberlin College	David Holtzman
1994	Gregory T. Hofeldt Lori Driscoll Larsen Ethan Abraham Albert Newman Michael Felton	University of Oregon Colorado College Macalester College Northeastern Illinois University Indiana-Purdue University	Terry Takahashi Robert Jacobs Lin Aanonsen William Pizzi W. Jeffrey Wilson
1996	Ben Deverman	University of Detroit	Mary Lou Caspers
1997	Jennifer J. Quinn Deborah A. Shear Gerald F. Reis	University of Scranton Central Michigan University Pomona College	J. Timothy Cannon Gary Dunbar Karen Parfitt
1998	Michelle Mazei Jill Roche Linda Schoenfeld Ali Khammanivong	Central Michigan University Amherst College Ithaca College University of St. Thomas	Gary Dunbar Sarah Turgeon Jean Hardwick Dwight Nelson
1999	Angela Burkhardt Elizabeth Ann Cresiski Rachel Groth Adam Orr	Muskingum College University of Pennsylvania Macalester College Trinity College	Larry Normansell Rita Balice-Gordan Lin Aanonsen William Church
2000	Jeremiah Boles Sara Hebbeler Matthew Kayser Jennifer Lewey Timothy Monahan Melanie Powers	University of North Carolina Indiana University Brown University Brandeis University University of Washington Ithaca College	Rick Meeker Dale Sengelaub Mark Bear John Lisman Theresa Jones Jean Hardwick
2001	Jennifer Caldwell Aaron Cecala Shawne Glenn Cameron Good Cindy Kenmuir C. Brock Kirwan Reyna Pijanowski Wendi Schmid	Davidson College Allegheny College Rider University Central Arkansas University Baldwin Wallace College University of Utah Bates College Northern Colorado-Greeley	Julio Ramirez E. Lee Coates Stephanie Golski James Murray G. Andrew Mickley Raymond Kesner Nancy Kleckner Gayle Brosnan-Watters

Table 1. FUN Undergraduate Travel Award Winners through 2001. No record of a 1995 award.

Faculty for Undergraduate Neuroscience Officers1991-92 Steering Committee

Julio Ramirez (Chair)
Sally Frutiger
Stephen George
Dennison Smith

1992-93 Executive Committee

Julio Ramirez (Chair)
Sally Frutiger
Stephen George
Dennison Smith
Gary Dunbar

	<u>President</u>	<u>President-Elect</u>	<u>Secretary</u>	<u>Treasurer</u>
1993-94	Julio Ramirez	Gary Dunbar	W. Jeffrey Wilson	Dennison Smith
1994-95	Gary Dunbar	W. Jeffrey Wilson	W. Jeffrey Wilson	Dennison Smith
1995-96	W. Jeffrey Wilson	Dennison Smith	Joseph Achor	William Pizzi
1996-97	Dennison Smith	Jack Boitano	Joseph Achor	William Pizzi
1997-98	Jack Boitano	Alan Gittis	Joseph Achor	William Pizzi
1998-99	Alan Gittis	William Pizzi	Larry Normansell	Eric Wiertelak
1999-00	William Pizzi	Karen Parfitt	Larry Normansell	Eric Wiertelak
2000-01	Karen Parfitt	Eric Wiertelak	Larry Normansell	Timothy Cannon
2001-02	Eric Wiertelak	Eric Wiertelak	Jean Hardwick	Timothy Cannon

Table 2. FUN Officers over the first ten years. The Past-President position is not illustrated; the position was filled by the previous year's President.

generations of neuroscientists. Because of Gettysburg College's generosity, W. J. Wilson in collaboration with Stephen Sivi and William Wilson from Gettysburg College launched a listserv dubbed FUNnet that ensured a regular channel of communication so that "Ideas can be shared, questions posed, and solutions reached in a way not before possible" (W. J. Wilson, personal communication with FUN members in February, 1994). By the end of the 1993-94 year, FUN had grown to 110 members.

Several events occurred in 1994-1995 that were of significance for FUN's identity, organizational structure, and attainment of a major goal. The tradition of transition in FUN's leadership was established at the Fourth Annual Meeting when Dunbar became FUN's second President and stewarded the organization through its next critical juncture. In his capacity as Chair of the Travel Awards Committee, Dunbar quickly recognized that donations from corporate sources were seriously hampered by the FUN's lack of non-profit tax status. In pursuit of its efforts to be officially recognized as a non-profit organization, Dunbar and the members of the Executive Committee urged the organization to create a set of governing By-Laws. Jack Boitano from Fairfield University spent the 1994-95 year

nearly single-handedly writing the By-Laws that were subsequently adopted by the membership. As part of his continuing efforts to enhance FUN's communication with the membership and the larger community, W. J. Wilson created the first FUN website (now located at www.funfaculty.org) that incorporated all of the documents that had previously existed in paper form, including the mission statement, the By-Laws, and the membership directory. Because of the overwhelming generosity of the Grass Foundation and Axon Instruments, FUN was in the position to make five travel awards to outstanding young neuroscientists to attend the 1994 Annual Meeting of the Society for Neuroscience (see Table 1). The Grass Foundation made an additional gift to FUN so the organization could begin examining how it might attain one of its primary goals: faculty development. A half day's meeting (attended by FUN's Executive Committee, Bruce Johnson, and Carol Ann Paul) was devoted at the 1994 Society for Neuroscience Meeting to formulate a plan by which FUN could offer a conference focusing on the exploration of innovative pedagogical strategies in the classroom and laboratory. Now with a plan in hand all the newly formed Faculty Development Committee had to do next was to raise the funds to pay for such an undertaking.

Paraphrasing Seneca, luck sometimes falls onto the laps of those who are prepared; in late 1994, FUN became a case in point. In its efforts to promote undergraduate science education, Project Kaleidoscope under the direction of Jeanne Narum offered to partner with FUN to host a meeting on undergraduate neuroscience education in the summer of 1995. Thus began a long and productive collaboration between FUN and Project Kaleidoscope to enhance undergraduate education by equipping undergraduate neuroscience faculty with the latest innovations in neuroscience education. The meeting, "Interdisciplinary Connections: Undergraduate Neuroscience Education," was organized by Ramirez (Chair), Smith, and Dunbar and was hosted by Davidson College from July 28-30, 1995. Approximately 80 participants from institutions as diverse as small liberal arts college and major research universities attended the meeting. In spite of the diverse institutions represented, the participants shared the common goals of promoting and nurturing undergraduate education in neuroscience. To those ends, the participants constructed a set of curricular blueprints to help guide institutions interested in developing undergraduate neuroscience programs. The blueprints were later published in an edited volume known as the Red Book (www.pkal.org); Stephen Waxman, Editor-in-Chief of *The Neuroscientist*, later invited Ramirez to submit the blueprint on the undergraduate neuroscience major to *The Neuroscientist* for publication (Ramirez, 1997). Finally, in the spring of 1995 FUN organized a second panel discussion on undergraduate education that was convened at the annual meeting of the Association of Neuroscience Departments and Programs; and the Executive Committee continued the dialogue between the two organizations.

Before the transition in leadership at FUN's fall meeting in 1995 occurred, Dunbar, with the full support of the Executive Committee, announced that in order to fulfill its mission FUN would need to instate annual membership dues. After a debate on the floor punctuated by Dunbar's eloquent arguments in support of dues, the membership in attendance voted to create a dues structure that would enable FUN's attainment of its goals. As soon as W. J. Wilson inherited the Presidency of FUN he and the Executive Committee implemented mechanisms for dues collection and accounting. By creating a structure to solidify its financial well-being, W. J. Wilson and the Executive Committee essentially ensured FUN's future viability.

During the second half of the 1990s, FUN grew considerably and became increasingly important in the neuroscience community as the voice for professors dedicated to undergraduate neuroscience education. In 1996 with Smith at the helm, FUN initiated the First Annual Undergraduate Poster Session that was held at the Sixth Annual FUN Social. Student recipients of the FUN Travel Award were encouraged to present their posters at the FUN Social. The event was well-attended and enthusiastically endorsed by the FUN membership. As part of FUN's efforts to raise money for the Travel Awards Timothy Cannon and his students at the University of Scranton launched the first item of what would later become the "FUN Product Line" at the Society for Neuroscience Meetings: FUN Buttons. This

event was of particular importance because it appreciably increased the funds available for the Travel Awards and it significantly enhanced FUN's visibility at the annual meetings of the Society for Neuroscience by creating a FUN booth. Finally, in the spring of 1997 Smith was asked to address the membership of the Association of Neuroscience Departments and Programs at their annual meeting. As a part of his efforts to maintain the communication between FUN and the Association, he discussed the curricular issues that are vital to the community of undergraduate neuroscience educators in a presentation titled, "Project Kaleidoscope: Developing Undergraduate Neuroscience." Smith obviously did an outstanding job in his presentation as he was elected in 1997 as a Councilor to the Association's Executive Committee to represent undergraduate programs' interests in that organization!

As President of FUN during the 1997-1998 term and with the support of the Executive Committee, Boitano made great strides in solidifying FUN's relationship with the Association for Neuroscience Departments and Programs. Boitano's efforts came to fruition when he successfully organized the third symposium on undergraduate neuroscience education at the Association's spring meeting. Once again, the Association's membership enthusiastically responded to the FUN-sponsored symposium. Moreover, conversations at the spring meeting between Boitano and the Association led to a survey and assessment of graduate and undergraduate programs in neuroscience focused on issues of curricular offerings (Boitano and Seyal, 2001). Of particular importance for FUN's financial health and future ability to attract corporate sponsorship of Travel Awards and future initiatives, FUN Treasurer William Pizzi completed FUN's application for tax-exempt status after much toiling with the Internal Revenue Service's daunting instruction manuals. Working with Narum at Project Kaleidoscope, Smith and Ramirez organized the second FUN/Project Kaleidoscope conference on undergraduate neuroscience education ("Interdisciplinary Connections: Blueprints for Reform in Undergraduate Neuroscience"). The emphasis of the conference, which was attended by about 80 participants, was on discovery-based learning and innovations in laboratory experiences. Numerous laboratory sessions focused on experiences drawn from *Discovering Neurons* (edited by Carol Ann Paul, Barbara Beltz, and Joanne Berger-Sweeney from Wellesley College), *Crawdads: A CD-ROM Lab Manual for Neurophysiology* (by Robert Wyttenbach, Bruce Johnson, and Ronald Hoy from Cornell University), and laboratory experiences that proved to be highly effective at Oberlin College. Smith and our other hosts at Oberlin were tremendously generous with their time and beautiful facilities. The participant evaluations of the meeting indicated that the meeting's experiential focus was a great success and influenced the design of the subsequent meeting at Trinity College.

After taking the reins of the organization for the 1998-1999 year, Alan Gittis and the members of the Executive Committee expanded FUN's efforts to encourage talented undergraduates to attend the annual meetings of the Society for Neuroscience. FUN invited all student co-authors (i.e., not solely FUN Travel Award winners) who were presenting

on the floor of the Society Meeting to present posters at the Annual FUN Social during the fall of 1999. Gittis and the Executive Committee therefore significantly expanded the number of students who could participate in the intellectual exchange occurring at FUN's poster session. Because of Gittis' efforts, a substantial number of faculty from graduate neuroscience programs attended the session; the undergraduate poster session was therefore transformed into a recruiting nexus for eager graduate faculty. As part of the plan to emphasize camaraderie and the celebration of FUN Travel Awards, as well as to more completely integrate the undergraduate posters into the FUN Social, Gittis and the Executive Committee created a separate Business Meeting in which the governance and operations of FUN would be discussed and debated. The early birds among FUN's membership applauded the 7 A.M. start time of the Business Meeting; the applause were particularly effective in waking up the remaining membership who were not quite as peppy as Gittis and the Executive Meeting when the sun was just rising! After waiting numerous months for the Internal Revenue Service's judgment, Pizzi, FUN's President-Elect, announced that the Internal Revenue Service approved FUN's application for not-for-profit tax-exempt status. Pizzi's accomplishment opened the possibility of a significant expansion in the gifts that FUN could now accept from regular members, corporate sponsors, and other donors in its efforts to promote its educational mission.

During the 1999-2000 term, Pizzi and the Executive Committee served as stewards for the organization during a period when the identity and structure of the organization was firmly in place. The number of Travel Awards was now running about four or more a year and the format of the business meeting closely resembled the typical faculty meeting (i.e., Robert's Rules of Order were invoked). Although at the surface the activities were relatively low-key during this period, the Executive Committee discussed the future direction of FUN as well as its efforts to attain several of the goals that had until that point remained elusive.

The celebration of FUN's Tenth Anniversary was energized by several key events. With her 2000-2001 Presidential term, Karen Parfitt from Pomona College became the first woman to lead the organization. For a discipline whose students are relatively evenly divided between the genders, the emergence of a woman to lead FUN into its second decade as well as into the next century was of great significance in the life of the organization. Under her leadership, the FUN Undergraduate Poster Session at the 2000 Annual Meeting of the Society for Neuroscience was opened to *all* undergraduate neuroscience students; the prior requirement that the posters had to be presented on the floor of the Society for Neuroscience conference was jettisoned. Parfitt and the Executive Committee dramatically broadened the number of schools sending students to the FUN Social and the Society Meeting and thereby reached students and faculty who might not otherwise have had the opportunity to participate in the world's largest neuroscience gathering of the year. Indeed, by the end of Parfitt's term as President, FUN's membership had grown to over 300 members. Because of

the generosity of its members, academic- and corporate-sponsors, at the 2000 fall Social FUN was able to award six Travel Awards to outstanding students from colleges and universities across the country. After several years of planning and debating, FUN finally attained one its earliest goals because of Eric Wiertelak's tremendous efforts: the establishment of the Lifetime Achievement/Career Award and Educator of the Year Award. The first Career Award was given to Ramirez. Underscoring the importance of the relationship between FUN and the Association of Neuroscience Departments and Programs in pedagogical matters, Parfitt and Hoy organized the fourth symposium on undergraduate neuroscience education at the Association's spring meeting titled, "Neuroscience as a Contact Sport: the Argument for Laboratory Training at the Undergraduate Level."

During the summer of 2001, Ramirez and Sarah Raskin from Trinity College organized the third FUN/Project Kaleidoscope conference: "Undergraduate Neuroscience Education: From the Enchanted Loom to the World Wide Web." As in the previous FUN/Project Kaleidoscope meetings, the participants were immersed in workshops involving innovative laboratory experiences as well as examinations of successful courses and programs from a broad variety of neuroscience programs. About 80 participants from thirty-one institutions attended the meeting, which was held in beautiful facilities generously shared by our hosts at Trinity College. Those schools that had neuroscience programs in the planning stages as well as those that had well-developed programs received individual assessment and consultation. One of the major goals of the meeting was to serve as a catalyst for the creation of regional undergraduate neuroscience meetings modeled after the NorthEast Under/graduate Research Organization for Neuroscience (NEURON) conference. To this end, one of the founders of NEURON Cheryl Frye, from the State University of New York at Albany, provided intensive instruction to participants interested in such an initiative. To date, this aspect of the Trinity meeting has successfully led to the launching of the Symposium for Young Neuroscientists and Professors of the SouthEast (SYNAPSE), which held its inaugural meeting attended by over 90 participants at James Madison University in the spring of 2003 under the direction of Cheryl Talley and Corey Cleland. An example of FUN's continuing maturation from an "organization of professionals" to a "professional organization," as an observer from a federal agency so astutely quipped, the participants of the Trinity meeting reached a conclusion after extensive discussion in plenary session that was later conveyed to the FUN's Executive Committee and membership: The Academic Research Enhancement Award (AREA) needed to have its cap lifted from \$100K to \$150K in order to enable AREA-eligible institutions to more effectively attain the research and training objectives laid out for this pivotal funding mechanism at the National Institutes of Health. Thus began a major FUN initiative that led to the creation of the Public Policy and Governmental Affairs Committee, which is mandated to increase the public's awareness of issues affecting undergraduate neuroscience education and

research and to maintain lines of communication with the federal agencies supporting our community's research and teaching efforts. The Trinity meeting was capped off with a lively Tenth Anniversary celebration of FUN's founding, complete with birthday cake!

If the first year of FUN's second decade is any indication of what our community can expect from FUN, the next ten years will prove to equal, indeed if not surpass, the activity of the first decade. Under Wiertelak and the Executive Committee's stewardship, FUN has launched new initiatives that will dramatically enhance FUN's impact on education and research in undergraduate neuroscience as well as FUN's financial well-being. With the financial support of FUN, Project Kaleidoscope, and Davidson College, Barbara Lom as Editor-in-Chief and Ramirez as Senior Editor launched FUN's flagship journal: *The Journal of Undergraduate Neuroscience Education* (www.funjournal.org). Working in collaboration with Executive Director Elaine Hoagland and President Mitchell Malachowski at the Council on Undergraduate Research as well as President Fred Gage at the Society for Neuroscience, FUN through its Public Policy and Governmental Affairs Committee (Ramirez [Chair], Smith, and David Jewett from the University of Wisconsin at Eau Claire) successfully persuaded the National Institutes of Health to raise the AREA cap from \$100K to \$150K, a major goal articulated at the Trinity College conference. FUN's efforts to improve the AREA program marked its first initiative to have significant impact on the broader biomedical research and education community. At the fall 2001 Social, FUN celebrated exemplary undergraduate research by making eight Travel Awards available to young investigators – the largest number of awards it had made up until that point. Collaborations between FUN and Deborah Colbern at Beemnet, Inc., produced imaginative and highly recognizable products for sale at the 2001 Annual Meeting of the Society for Neuroscience that pivotally support FUN's educational mission. Because of Beemnet's ready access to internet technology, Colbern offered to provide FUN web support and server space. Colbern's generosity, commitment, and enthusiasm for educating the public about neuroscience increased the likelihood that a growing number of future students will benefit from the FUN programs such as the Travel Award.

FUN's contributions to the educational and scientific

communities during its first decade have considerably expanded the opportunities for future generations of faculty invested in undergraduate neuroscience education. The first decade had periods of exuberant activity and quiet reflection; all of which ultimately led to an organization now recognized as the voice of undergraduate neuroscience faculty. Educators of undergraduate neuroscience students have established an organization that will ensure our students not only receive excellent preparation for advanced study in the neurosciences and related health-professions, but also be prepared intellectually for the responsibilities they will assume as they become active participants in the global dialogue weaving the social fabric of which they are a part. The interdisciplinary nature of neuroscience demands that its students be able to think critically, creatively, and synthetically as well as to respond to an accelerating expansion of knowledge. As FUN enters its second decade, FUN continues to explore how an interdisciplinary undergraduate education can effectively transform the educational experience of our students in the sciences by incorporating pedagogical innovation, rewarding the fusion of teaching and research, and involving students in scientific inquiry and discovery early in their undergraduate careers. The fun has only just begun!

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DEDICATION

This article is dedicated to the memory of Dr. Patricia Goldman-Rakic (1937 to 2003). Her intellect, energy, and integrity inspired us all.

Footnote: This article first appeared on the Project Kaleidoscope website in November 2003 as part of the PKAL Neuroscience Portfolio.

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