

Update on the Strategic Plan Goals and Objectives for Research AY 2009-10

David Troilo, 10 November 2010



SUNY COLLEGE OF OPTOMETRY
CENTER FOR VISION RESEARCH

2.0 Making new discoveries that advance vision science and patient care

- 2.1 Goal: To develop and maintain the most productive basic and clinical research programs among schools and colleges of Optometry.
- 2.2 Goal: To establish a Center for Clinical Research.
- 2.3 Goal: To provide resources to attract and retain outstanding research faculty.
- 2.4 Goal: To enhance the Ph.D. program in Vision Science
- 2.5 Goal: To integrate the O.D./M.S. Program in Vision Science with clinical research and the development of clinical faculty.



2.1 Goal: To develop and maintain the most productive basic and clinical research programs among schools and colleges of Optometry.

Objectives by 2013

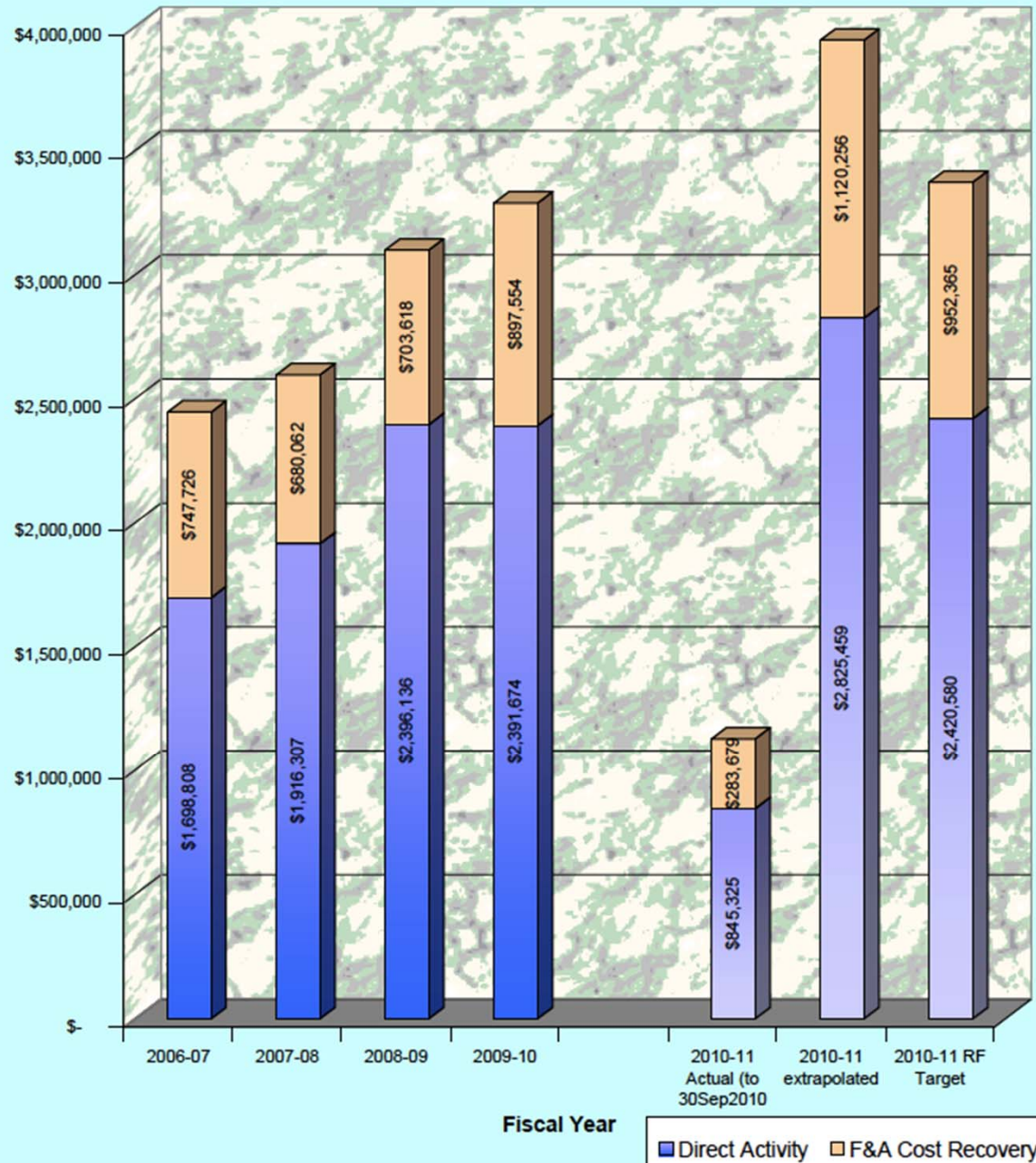
- *Increase research funding to \$5 million*
- *10 faculty with NIH grants (3 clinical)*
- *3 NIH Clinician Development Awards*
- *100 publications in peer reviewed journals (10 high impact)*
- *100 publications of patient-based research*
- *3 seminal basic science discoveries*
- *2 significant applications of basic research to clinic*
- *3 clinical contributions to standards of care*
- *Foster research collaborations*
- *Facilitate application of basic research*



2.1 Goal producti program Optome

- *Increase*

SUNY Optometry Research Foundation Activity for Fiscal Year 2006 through Q1 FY 2011



2.1 Goal: To develop and maintain the most productive basic and clinical research programs among schools and colleges of Optometry.

- 10 faculty with NIH grants (3 clinical)

18 NIH grants
(held by 11/27
graduate faculty)

2 R21s

1 R56

4 Subcontracts

1 T35

Other federal grants

2 NSF

2 DoD

Actual Expenditures and F&A recovery for July 1, 2010 through September 30, 2010						
DIRECT	F&A Recovered	TOTAL	AWARD#	AWARD PI	Sponsor	
\$ 72,072	\$ 42,002	\$ 114,073	42624	Alonso NIH/NEI		
\$ 68,374	\$ 35,953	\$ 104,328	48347	Backus NIH/NEI		
\$ 129,505	\$ 32,964	\$ 162,468	53269	McPeck NIH/NEI		
\$ 54,813	\$ 30,341	\$ 85,154	38858	Lee NIH/NEI		
\$ 71,677	\$ 28,456	\$ 100,134	46733	Troilo NIH/NEI		
\$ 64,896	\$ 25,535	\$ 90,431	50422	Srinivas NIH/NINDS		
\$ 17,776	\$ 13,640	\$ 31,415	38857	Zaidi NIH/NEI		
\$ 52,048	\$ 11,521	\$ 63,569	50522	Reinach TRUE - Army/DoD		
\$ 40,465	\$ 11,347	\$ 51,812	37008	Zaidi NIH/NEI		
\$ 21,074	\$ 10,094	\$ 31,168	51673	Reinach NIH/NEI		
\$ 16,067	\$ 7,151	\$ 23,218	53445	Dul Indiana/NIH/NEI		
\$ 13,851	\$ 6,764	\$ 20,615	44596	Backus NSF		
\$ 32,382	\$ 5,959	\$ 38,341	46158	Sack Alcon		
\$ 9,269	\$ 4,985	\$ 14,254	48829	Troilo Oklahoma/NIH/NEI		
\$ 7,055	\$ 3,938	\$ 10,993	53592	Srinivas/White NIH/Arthritis/StonyBrook		
\$ 15,202	\$ 3,447	\$ 18,649	53947	Sherman/Bodis-Wolner NIH/Downstate/MJFox		
\$ 42,296	\$ 3,384	\$ 45,680	53264	Ciuffreda NIH/NEI		
\$ 8,407	\$ 3,053	\$ 11,461	54840	Srinivas NIH/NEI		
\$ 7,850	\$ 1,336	\$ 9,186	52058	Alonso NSF		
\$ 9,960	\$ 797	\$ 10,757	55692	Philpott NYS Education Department		
\$ 3,397	\$ 510	\$ 3,907	45630	Adamczyk Vision Service Plans		
\$ 2,308	\$ 231	\$ 2,538	44657	Backus Human Frontiers		
\$ 1,230	\$ 184	\$ 1,414	09018	Dul Ciba Vision Corporation		
\$ 1,234	\$ 88	\$ 1,322	51232	Philpott NYS Education Department		
\$ 41,356	\$ -	\$ 41,356	37677	Srinivas NIH/NEI		
\$ 19,963	\$ -	\$ 19,963	45702	Alonso NIH/NINDS		
\$ 1,753	\$ -	\$ 1,753	53678	Wells NYS Education Department		
\$ 17,609	\$ -	\$ 17,609	53718	Alonso NIH/NEI		
\$ 76	\$ -	\$ 76	55372	Rosenfield SUNY College of Optometry		
\$ 1,358	\$ -	\$ 1,358	55628	Backus SUNY College of Optometry		
\$ 845,325	\$ 283,679	\$ 1,129,004	ACTUAL FiscalYTD			
\$2,825,459	\$ 1,120,256	\$ 3,945,715	Extrapolated for FY, excl, non-recurring funds ** (RF assessment is expected to be about \$110,000)			

2.1 Goal: To develop and maintain the most productive basic and clinical research programs among schools and colleges of Optometry.

New Awards in FY 2010-11

Principal Investigator	Start Date	Sponsor	Annual budget	Years
Ciuffreda, Dr. Kenneth J J Treatment of TBI-induced oculomotor dysfunctions and associated reading problems.	27-Sep-10	USArmy Med Res Mat Cmd - USAMRAA	\$ 135,239	1
Philpott, Jeffrey CSTEP (FY 10-11)	01-Jul-10	NYS Dept of Education	\$ 77,248	1
Sack, Dr. Robert A Proteome Array Taechnology and the Human Tear Film: Exploring Cytokine...	01-Jul-10	Alcon Research Ltd	\$ 131,250	1
Srinivas, Dr. Miduturu Intracellular Communication in the Lens	01-Jul-10	National Eye Institute	\$ 225,000	5



2.1 Goal: To develop and maintain the most productive basic and clinical research programs among schools and colleges of Optometry.

Award PI

Start and End Dates

Sponsor

Direct and Indirect Amount

Total Amount

Status: SUBMITTED

Backus, Dr. Benjamin

P30-Center Core Grant for Vision Research

Award#:	N/A	SUBMITTED on 9/22/2010	Downstate/ NEI	
Project Period:	01-Jul-11	30-Jun-16	\$ 521,645	\$ 281,561
Award Period:	01-Jul-12	30-Jun-12	\$ 104,329	\$ 56,312
PI Active Award \$:			\$104,329	\$56,312
				\$160,641



2.1 Goal: To develop and maintain the most productive basic and clinical research programs among schools and colleges of Optometry.

- *3 NIH Clinician Development Awards*
 - *In 2009-10, an Assistant Clinical Professor, Cristi Llerena, received an LRP award and is receiving significant institutional support. She is developing ideas with research advisor Ben Backus for possible K grants.*



2.1 Goal: To develop and maintain the most productive basic and clinical research programs among schools and colleges of Optometry.

- *100 publications in peer reviewed journals (10 high impact)*
 - *42 publications in 2009-10*

2001-2	2002-3	2003-4	2004-5	2005-6	2006-7	2007-8	2008-9	2009-10	mean
34	62	56	47	52	56	73	54	42	53

- *None in Science or Nature this year (3 between 2005-2008)*
 - *Need a analysis of impact factors and citations*
- *100 publications of patient-based research*
 - *No information currently available*
 - *Need an accurate breakdown of publications*



2.1 Goal: To develop and maintain the most productive basic and clinical research programs among schools and colleges of Optometry.

- **3 seminal basic science discoveries**
 - *Difficult to predict – look at impact and citations of past publications*
- **2 significant applications of basic research to clinic**
 - *Ex. Ongoing research by Backus on visual learning*
 - *Ex. Ongoing research by Sack on immunology of tears*
- **3 clinical contributions to standards of care**
 - *Ex. Ongoing Research by Dul on visual field analysis in ocular disease*



2.1 Goal: To develop and maintain the most productive basic and clinical research programs among schools and colleges of Optometry.

- *Foster research collaborations*
- *Facilitate application of basic research*
 - *\$20 K for collaborative research awards (basic/clinic) from SIVR funds*
 - *2 awards in 2009 for 2010-11 budget*



2.2 Goal: To establish a Center for Clinical Research

In 2010 we began the development of a Center for Clinical Research by beginning to develop an Clinical Trials Office.

- Working with SUNY REACH Clinical Translational Research program for advice and training*
- Clinical Trials Office will hire a Clinical Trials Coordinator to work with PIs on study design, IRB approvals, subject recruitment and coordination, and will establish the IT systems needed to obtain and maintain patient records and clinical data.*
- *Goal: Promote groundbreaking research by recruiting clinical research faculty with NIH-funding for patient-based research*
 - Developed ad and posted research position for clinical research faculty in summer of 2010*



2.2 Goal: To establish a Center for Clinical Research

- *Develop a research-based career path for clinical faculty with mentoring, and infrastructure for clinical research*
 - *Competitive process Identified clinical faculty for research support in 2010*
 - *Searches for clinical faculty consider research experience and expectations.*
 - *Clinical faculty mentoring for translational research being done through LRP requirements by basic scientist (Llerena/Backus).*
 - *Lack of mentoring for clinical research because of lack of clinical research...*
 - *Infrastructure for clinical research being developed for Clinical Trials Office*
 - *Possible Clinical Trials Coordinator identified*



2.2 Goal: To establish a Center for Clinical Research

- *Develop translational research by funding pilot projects, faculty recruitment, clinical fellowships for translational research*
 - *\$20 K SIVR funding per year for pilot projects will emphasize basic/clinic collaborations for translational research*
 - *2 funded in 2010-11*
 - *Call for applications this winter for 2011-12 funding*
 - *Faculty ad for clinical research posted summer of 2010*



2.3 Goal: To provide resources to attract and retain outstanding research faculty.

- *Endowed chairs to recruit and retain outstanding researchers*
 - *Haffner Innovation Chair 2011 (\$500,000 endowment).*
- *Recruit outstanding research faculty*
 - *Rob McPeck hired in 2010*
 - *Ads for three positions developed and posted*
 - *Clinical research*
 - *Optics research*
 - *Cell biology/biochemistry/molecular biology*



2.3 Goal: To provide resources to attract and retain outstanding research faculty.

- *Expand (imaging) research facilities*
 - *Modifications to BRF and 16th floor laboratory facilities proposed in 2009 for a G20 grant (\$5.8 M) that was not received. The project is back in the planning stage for SUCF budget for 2011*
- *Provide access to MRI facility*
 - *Collaboration with Weil-Cornell*
- *Compete for NY State funds for researchers*
 - *Development of the SUNY Eye Institute*
 - *Relationship to SUNY REACH*
 - *Empire Innovation funds*



2.3 Goal: To provide resources to attract and retain outstanding research faculty.

- *Increased collaborations through visiting professor program for research*
 - *Faculty driven visiting collaborations are encouraged*
 - *Current visiting faculty (Lee)*
 - *Hao Sun – University of Buskerud, Norway*
 - *Ding Cao – University of Chicago*
- *Develop policy for bridge funding*
 - *Done - Policy developed in 2009-10 (7/15/09)*
 - *Includes discretionary funds for funded researchers (equivalent to 5% of F&A)*
 - *Includes 30% limited on salary offset from grants*



2.4 Goal: To enhance the Ph.D. program in Vision Science.

- *Arrange Ph.D. training along interdisciplinary functional themes*
 - *All students must do multiple lab rotations*
 - *Collaborative mentorship encouraged*
 - *Michael Jansen – Zaidi/Alonso*
 - *Bonnie Cooper – Alonso/Backus*
- *New research oriented curriculum to recruit strong graduate students and post-docs*
 - *Laboratory rotations*
 - *Multiple required student presentations*
 - *Required grant writing assignments – research proposals*
- *Competitive stipends for graduate students*
 - *\$30,000 stipend w/benefits for 12 PhD students*
 - *Tuition waivers*
 - *Total value approx \$55,000/each*



2.4 Goal: To enhance the Ph.D. program in Vision Science.

- *Host national and international vision conferences*
 - *VisionNYC ongoing*
 - *International Perimetry Society in 2011*
- *Brand and increase visibility of graduate programs*
 - *GCVR – Graduate Center for Vision Research*
 - *Still need to develop Research Brochure*
- *Coordinate Ph.D. recruitment, application, and admission process with O.D. admissions*
 - *Underway – graduate programs using Jenzabar*



2.4 Goal: To enhance the Ph.D. program in Vision Science.

- *Increase student and faculty interaction with NY scientists*
 - *VisioNYC*
 - *Collaborations*
 - *City College of New York (Troilo)*
 - *Weil-Cornell (Zaidi)*
 - *Einstein (Srinivas)*
 - *Mt. Sinai (Reinach)*
 - *New York University (Alonso)*
 - *Rockefeller (Alonso)*
 - *Stony Brook (Srinivas)*



2.5 Goal: To integrate the O.D./M.S. Program in Vision Science with clinical research and the development of clinical faculty

- *25% of OD/MS graduates attaining faculty and research positions*
 - *Baseline data... for OD/MS or PhD? accuracy?*

Total number of degree recipients	40
2008 survey respondents	18
Academic positions	7 (39%/17.5%)
Current PI on grant	1
PI on grant over past 10 years	3
First or second author last 3 years	5



2.5 Goal: To integrate the O.D./M.S. Program in Vision Science with clinical research and the development of clinical faculty

- *All OD/MS theses published and students attend at least one national scientific conference*
 - *Get number actually published in peer review journals*
 - *Number of student presentations at ARVO, VSS, SFN, AAO*
- *Encourage shared mentorship of OD/MS students by basic science and clinical faculty*
 - *Joanne Malek (Backus/Llerena)*
 - *Isadora Ritter (Zaidi/Steiner)*
 - *Olga Kochurova (Portello/Rosenfield)*
 - *Jackie Bruno (Rosenfield/Portello)*



2.5 Goal: To integrate the O.D./M.S. Program in Vision Science with clinical research and the development of clinical faculty

- *Clinical research oriented curriculum to facilitate clinical research and clinical teaching*
 - *Needs development – teach clinical trial design, translational research concepts?*
 - *Emphasize clinical research or clinical relevance for OD/MS projects.*
 - *OD/MS program reviewed in 2009 and requirements for colloquium attendance made and goal to emphasize clinical research established – need to measure percent of clinic projects*
- *OD/MS linked to clinical research projects by clinical faculty*
 - *Needs development*
 - *Linked to increasing clinical research*
 - *Outcome measure: List OD/MS projects by topic and track percent clinical projects*
- *Integrate OD/MS and PhD course work and research projects to facilitate transitions*
 - *Needs development*
 - *Develop opportunities to use of OD/MS as a feeder program for PhD*



1.0 Developing outstanding optometrists and vision scientists

- 1.1 Goal: To provide innovative, exciting, and attractive educational programs that meet the evolving needs of our students and the public.
 - *Objective: Additional masters-level opportunities for students pursuing the O.D. degree will be developed.*
 - *No new activity since draft report for MBA in 8/08 by Mort Soroka*



1.0 Developing outstanding optometrists and vision scientists

- 1.9 Goal: To attract and retain highly qualified, full-time faculty members.
 - *Objective: A program of awards and recognition for achievements of faculty will be developed.*
 - *Scholars dinner continues for faculty conducting research*
 - *Discretionary awards for funded researchers developed in 2009*



4.0 Enhancing public health through education and service to a broad range of communities:

- 4.1 Goal: To increase SUNY Optometry's international presence.
 - *Objective: Affiliations with foreign institutions will include opportunities for collaboration on basic science or clinical research projects.*

- *Increase SIVR colloquium speakers from outside the US*

2007-8	2008-9	2009-10	2010-11 to date
3	7	5	4

- *International collaborations*

- Wenzhou Medical College
 - Max Plank Institute
 - Univ. Buskerud, Norway
 - Univ. Trondheim, Norway
 - Univ. Sydney
 - Univ. of Bari, Italy
 - TongRen Hospital, Beijing
 - Durham Univ, England
 - University of Belgrade, Serbia
 - Wakayama Medical School, Japan
 - Charite University, Berlin



