Table 1. Minority enrollment, transfer, and baccalaureate completion at each of the *Bridges to Biomedicine* partnering institutions.

	Annual enrollment in biomedical majors				Biomedical transfer to baccalaureate programs				Biomedical baccalaureate degree completion			
SAC	**all SAC biomed students (A)**	**1127**	**Minority fraction (B)**	**58%**	**Annual biomed transfer to BS/BA programs**	**Est. Minority biomed transfers (C)**	**105**	**18% of minority biomed students transfer into BS/BA programs (C)**	**Annual biomed BS/BA degrees complete in 6 yrs for SAC transfer students**	**Est. Minority Degrees (E)**	**45**	**43% of minority STEM transfers to TxState complete in 6 yrs**
			Hispanic	*50%*		*Hispanic*		**13% of Hispanic** STEM students transfer (C)		Est. Non-Minority Degrees (E)	75	71% of non-minority STEM transfers complete
			African-American	*6%*		*African-American*		**19% of African-Am** STEM students transfer (C)				
			Native American & Alaskan Native	*>1%*		*Native American & Alaskan Native*		**19% of Native Am/Alaskan** STEM students (C)				
						Overall biomed transfers (D)	210	22% of all biomed SAC students transfer (C)		Est. Overall (E)	120	57% of all STEM transfers complete
NVC	**all NVC biomed students (A)**	**1219**	**Minority fraction (B)**	**58%**	**Annual biomed transfer to BS/BA programs**	**Est. Minority biomed transfers (C)**	**179**	**29% of minority biomed students transfer into BS/BA programs (C)**	**Annual biomed BS/BA degrees complete in 6 yrs for NVC transfer students (E)**	**Est. Minority Degrees (E)**	**77**	**43% of minority STEM transfers to TxState complete in 6 yrs**
			Hispanic	*50%*		*Hispanic*		**23% of Hispanic** STEM students transfer (C)		Est. Non-Minority Degrees (E)	112	71% of non-minority STEM transfers complete
			African-American	*6%*		*African-American*		**24% of African-Am** STEM students transfer (C)				
			Native American & Alaskan Native	*>1%*		*Native American & Alaskan Native*		**43% of Native Am/Alaskan** STEM students (C)				
						Overall biomed transfers (D)	337	31% of all biomed NVC students transfer (C)		Est. Overall (E)	189	57% of all STEM transfers complete
Tx State	**all TxState biomed students (F)**	**1837**	**Minority fraction**	**39%**	**Annual biomed transfer to BS/BA programs**	**Not applicable**			**Annual biomed BS/BA degrees complete in 6 yrs for Tx State students (F)**	**Minority Degrees**	**41**	**40%**
			Hispanic	*26%*						Non-Minority Degrees	105	44%
			African-American	*7%*								
			Native American	*>1%*						Overall	146	43%

Abbreviations: "SAC" - San Antonio College; "NVC" - Northwest Vista College; "TxState" - Texas State University-San Marcos; "IR" - Institutional Research department; "THECB" - Texas Higher Education Coordinating Board; "NSC" - National Student Clearinghouse

(A)	*Biomedical enrollment is based on data pulled from a detailed analysis of the **Fall 2010 and Spring 2011 STEM cohorts, provided by IR for Alamo College and based on data from the NSC**. Biomedical majors included: 26.00 (Biol. Sci); 40.00 (Phys. Sci.); 51.10 (Clin/Med Lab Res & Allied Hlth); and 51.11 (Hlth/Med Prep prgms).*
(B)	*These proportions describe the ethnic/racial enrollment of the **2010/11 STEM cohort at each institution** (they happen to be the same). The numbers for specifically the biomedical majors were not available, but are not likely to differ significantly from these. The numbers do not add to 100% because international and "unknown" were excluded.*
(C)	*This is the estimated number and rate of minority biomed transfers to baccalaureate programs (assumed to be biomedical) based on the rate of transfer of the specific ethnic/racial subgroups in the **2010/11 STEM cohort, provided by IR from Alamo Colleges and based on data from NSC,** and applied to the total annual biomed transfers (see (D)). We expect the STEM transfer rates of these subgroups to underestimate the biomedical transfer rate, as the overall STEM transfer rate is about 6% lower than the overall biomed transfer rate.The rate of transfer for minority biomed students as a group was determined algebraically using the proportion of minority students in the transfer cohort and its difference from the proportion of minorities in the whole cohort, and the overall rate of transfer for biomed majors.*
(D)	*This is the average of 4 years of biomedical transfer data. Data from 2008/09 to 2010/11 comes from analysis of **reports from exit cohorts in these years obtained from the THECB** website. Data for students transferring in 2011/12 comes from an analysis of the **2010/11 STEM cohort provided by IR for Alamo Colleges**.*
(E)	*In the absence of any science-focused degree completion data for the Alamo Colleges, we used the **degree completion rates for minority and non-minority STEM transfer students to TxState from Alamo Colleges provided by IR at TxState** to approximate the general completion rates for biomedical transfer students. This data is potentially misleading, as it is based on a cohort of only 14 transfer students, half of whom were minority.*
(F)	*All of the TxState enrollment and completion data is provided by **data from IR for TxState**. Enrollment is based on a 3-yr average from Fall 2010-2012. The number of biomedical degrees is based on a 3-yr average of degrees awarded from 2009-2011. Six-yr rate of degree completion is based on a 3-yr average from the Fall 2003-2005 cohorts of first-time, full-time freshmen. Unknown and international were excluded from both minority and non-minority categories, but included in overall. Biomedical majors included Biology, Microbiology, General Physiology, Zoology, Biochemistry, Chemistry, and Pre-Vet.*

Table 4. Comparison of biomedical degree plans at TxState and Alamo Colleges
** these all assume that you enter ready to take College Algebra*

	Texas State BS degree plans (first 2 years)				**Alamo Colleges AS degree plans**							
	Chem-istry	Bio-chem-istry	Micro-biology	Biol-ogy	Chem-istry	Chem Re-search	Pre-Pharm	Bio-tech	Biol-ogy	Pre-Dent	Pre-Med	Pre-Opt
Math												
College Algebra	**X**	**X**	**X**	**X**	**X**	**X**	**X**	(A)	B	B	B	**X**
Pre Calc	**X**	**X**	**X**	**X**	**X**	**X**	**X**	-	-	-	-	**X**
Calc I	**X**	**X**	**X**	**X**	**X**	-	**X**	-	-	-	-	**X**
Calc II	**X**	**X**	**X**	**X**	-	-	-	-	-	-	-	-
Chemistry												
Gen Chem I (majors)	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Gen Chem II	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Ochem I	**X**	**X**	**X**	**X**	**X**	**X**	**X**	-	-	-	-	-
Ochem II	**X**	**X**	**X**	**X**	**X**	-	-	-	-	-	-	-
Biology												
Gen Biol I (for Majors)	*N/A*	**X**	**X**	**X**	*N/A*	*N/A*	-	-	**X**	**X**	**X**	**X**
Gen Biol II	*N/A*	**X**	**X**	**X**	*N/A*	*N/A*	-	-	**X**	**X**	-	**X**
A&P I	*N/A*	*N/A*			*N/A*	*N/A*	-	*N/A*	-	-	**X**	-
A&P II	*N/A*	*N/A*			*N/A*	*N/A*	-	*N/A*	-	-	**X**	-
Physics												
Phys I (no calc)	*N/A*	*N/A*	*(jr yr)*	*(jr yr)*	*N/A*	*N/A*	**X**	-	-	**X**	-	**X**
Phys II (no calc)	*N/A*	*N/A*	*(jr yr)*	*(jr yr)*	*N/A*	*N/A*	-	-	-	-	-	-
Phys I (calc prereq)	**X**	**X**	*N/A*	*N/A*	-	-	-	-	-	-	-	-
Phys II (calc prereq)	**X**	**X**	*N/A*	*N/A*	-	-	-	-	-	-	-	-
Other Sci/Math hours in the first 2 years	-	-	-	-	-	**13** (*C*)	-	**19** (*D*)	**8** (*E*)	**4** (*E*)	**4** (*E*)	-
Gen Ed												
Gen Ed hours (F)	20	10	17	17	29-31	29	29-31	29	29-31	29-31	29-31	29-31
Gen Ed hours in last two years	20-21 (*G*)	19	14	14								

Footnotes:

A	*Does not prepare for progression to pre-calculus*
B	*Algebra is one option among a number of eligible math courses*
C	*None of these courses satisfy direct degree requirements*
D	*4 hours of the 19 are Microbiology, which transfers into degree program*
E	*All additional hours are courses that meet requirements for Biology, Microbiology, and Biochemistry programs*
F	*Excluding Freshman Seminar and Comp I and II courses, which are required of all programs, and excluding Science and Math gen ed.*
G	*These include hours required for minor*

Table 5. Student development and research training programs for biomedical undergraduates, by partner institution.

Texas State University (TxState) – Programs for Biomedical Undergraduates						
Program	**Project Duration (Years): Start and Ending Dates**	**Funding Agency**	**Program Goals**	**Number of Partici-pants**	**Target Audience**	**How does this serve biomedical undergraduates?**
CheMIE: A Chemistry REU on Molecular Innovation and Entrepreneur-ship	2012-2015	NSF	Build a research community at TxState that will provide a supportive research environment for students that would not otherwise be able to actively participate in undergraduate research.	12 per year	Underrepresented minorities (“minorities”) and students otherwise unable to participate in undergraduate research who are interested in chemistry, biochemistry, or materials science	Fully 1/3 of the undergraduate research done through this program is biochemical research that directly fosters preparation for and interest in biomedical research careers. Moreover, the establishment of this research community will benefit unaffiliated biomedical undergrad researchers by increasing the academic network and by encouraging the development of resources that benefit all undergraduate biomedical researchers.
Houston-Louis Stokes Alliance for Minority Participation Scholars Program (H-LSAMP)	Started 1999, continuing at least through 2013	NSF	Structured as a community of scholars, H-LSAMP is designed to substantially increase the number of students graduating with baccalaureate degrees in STEM, particularly students from diverse backgrounds.	20 students per year	STEM students with diverse backgrounds	20% of the participants in the program can be biomedical majors. H-LSAMP scholars receive financial support, undergraduate research experience
Collaborative Learning Center			Students from the H-LSAMP Scholars Program offer free walk-in tutoring in the CLC Tutoring Lab covering basic & advanced courses in biochemistry, biology, chemistry, computer science, engineering, math, physics, and technology.	No limit	Any STEM student wanting academic support through collaborative learning.	This is a resource offered through the H-LSAMP program, but open to any interested STEM major (including biomedical majors). Biomed undergrads can benefit from the peer tutoring and other academic support offered through this center.

South Texas Doctoral Bridges (funding pending)	July 2013 through July 2018 (pending)	NIH (pending)	Increase minority student enrollment and academic success in the Biochemistry Master's program at TxState, and increase flow of minority students to biomedical doctoral programs.	1 under-grad	Minority biochemistry/ chemistry/ biology juniors who are very strong academically and have undergraduate research experience	If funded, this program will permit 1 outstanding junior biomedical major accelerated entry into the Biochemistry Master's program at the start of their senior year, paying for student tuition and reducing time to post-graduate degree completion.
Student Undergraduate Research Funding (SURF)	Starting AY 2012-2013	TxState Under-graduate Research Program	This program offers all undergraduate students funding opportunities to enhance their education through faculty-supervised research. This fund will support independent undergraduate research on- and off-campus and require presentation of research results at an undergraduate research conference.	At least 19 per year	Any TxState undergraduate is eligible	Biomedical undergrads can apply for this supplemental funding for either independently-designed research or more traditional research through a biomedical lab program. The participants will also have an opportunity to develop research presentation skills. Additionally, the application is a simplified grant application; learning grant-writing skills will benefit biomedical undergrads.
TRiO/Student Success Services (SSS)	Since sometime in the 1990's	US Dept of Ed.	(1) Increase retention and graduation rates, and (2) foster an institutional climate supportive of success for first-generation college students, low-income students and students with disabilities.	200 per year	Must be first-generation college student OR low-income student OR student with a documented disability	Many biomedical majors will be eligible for support through this program.
Student Learning Assistance Center (SLAC)	n/a	TxState	A multi-faceted academic support program, it provides tutoring services (individual, group, online), supplemental instruction (collaborative group study for specific courses), learning and study skills workshops, and learning specialist consultations.	No limit	All TxState students	Biomedical majors can receive academic support through this center.

Partnership for Research and Education in Materials (PREM)	2012-2017	NSF	The mission is to increase participation by underrepresented groups in materials research. One of the main goals of the TxState PREM Center is to create a "Pipeline to Success in STEM Education," designed to provide opportunities for mentoring and research to students at all levels.	Unspe-cified	especially geared toward the population of underrepresented and underserved students	Biomedical majors may benefit from the general STEM educational outreach activities offered through this program.
San Antonio College (SAC) – Programs for Biomedical Undergraduates						
Program	**Project Duration (Years): Start and Ending Dates**	**Funding Agency**	**Program Goals**	**Number of Partici-pants**	**Target Audience**	**How does this serve biomedical undergraduates?**
Advancing Community College Engineering and Science Opportunities (ACCESO)	Start 10/1/2010, end 9/30/2013 (but renewal pending)	US Dept of Ed., through the Minority Science and Engineer-ing Improve-ment Program (MSEIP)	Increase the number of underrepresented minority students, especially minority women, in Bexar County who complete credits and/or associate degrees toward transfer to 4-year programs in science and engineering and obtain science/engineering bachelor's degrees.	No limit	Underrepresented minority students, especially minority women, in Bexar County	This program serves undergraduates through establishing the MESA program (see below) and providing professional development to SAC faculty in science and engineering to implement 'best practices,' improve curricula, and pilot learning communities/ new delivery methods/new course content, improving biomedical student learning.
Math, Engineering, and Science Achievement (MESA) Community College Diversity in Engineering Centers program	Start 10/1/2010, end 9/30/2013 (but renewal pending)	US Dept of Ed. (establishe d through MSEIP-ACCESO and Title V, maintained through institutional funds)	Support SAC students pursuing degrees in the STEM disciplines, and prepare them to continue their education in baccalaureate and graduate studies by providing helpful resources for academic success and degree-planning, and by providing guidance in seeking scholarships, internships, and transferring to 4-year programs.	200+	Low-income and educationally-disadvantaged STEM students	The MESA Center provides activities to increase persistence for biomedical students, including: learning communities; supplemental instruction; tutoring; mentoring; field trips; connection to internships and/or employment; and, support minority science clubs (e.g., MAES/ SACNAS/ SWE).

Adelante Texas, a Title V Cooperative Project	Started 10/1/2011, ending 10/1/2015	US Dept of Ed. (through Title V)	This is a partnership between SAC and Sul Ross State University (SRSU) to increase enrollment, retention, transfer and graduation in the sciences at both campuses. The grant seeks to increase the number of students declaring STEM majors at SAC and matriculate them through to corresponding graduate programs at SRSU. The project will also work to increase the availability and quality of distance coursework in the sciences so that co-enrolled students can take courses toward their degree at either campus, thereby decreasing time to graduation.	No limit	Hispanic and low-income science students at SAC	Biomedical students will benefit from this program through increased access to upper-level courses through distance education, helping to improve likelihood of transfer, keep students on-track, and increase persistence. Also, there will be a clearer pathway to transfer (to SRSU).
Project CIMA (pending funding)	2013 to 2015 (pending funding)	NSF, through LSAMP B2B program	Improve recruitment and retention of STEM majors, deepen and broaden student engagement and learning in STEM, and facilitate and improve the transfer experience for students transferring to universities.	180	STEM students in SAC and NVC, particularly those with diverse backgrounds	Biomedical majors will benefit from this STEM-targeting program through improved academic performance, improved persistence, and improved transfer experience.
T-STEM Challenge Scholarship Program	Started 6/1/2012, ends 2/28/2014	Texas Higher Education Coordina-ting Board	With NVC, increase the number of graduating students in STEM, provide up to $5000 in scholarships to STEM students, and increase the number of graduates working in STEM fields.	72 at SAC in first year	SAC STEM students	Biomedical majors will benefit from the efforts to improve progress towards graduation in STEM, and will benefit from eligibility for scholarship funds.

Northwest Vista college (NVC) – Programs for Biomedical Undergraduates						
Program	**Project Duration (Years): Start and Ending Dates**	**Funding Agency**	**Program Goals**	**Number of Partici-pants**	**Target Audience**	**How does this serve biomedical undergraduates?**
Project INNOVISTA, a Title V HSI program	Started 10/1/2011, ending 10/1/2015	US Dept of Ed. (through Title V)	This program is designed to overcome the significant obstacles to student access, success and persistence through expanding and improving online learning opportunities, advancing students through developmental education, and creating a quality freshman experience through development of learning communities and improved academic advising.	No limit	Hispanic and low-income students at NVC	Biomedical students will benefit from this program through more efficient progress through developmental education and into degree programs, and improved early advising.
Math-Intensive Majors Scholarship (MIMS) project, an S-STEM program	6/2/2011 to 5/31/2015	NSF (through S-STEM)	Increase the number of underserved and financially disadvantaged student graduates in STEM through scholarship assistance to STEM majors	25 per year	underserved and financially disadvantaged STEM students	Biomedical majors are included among the Math-Intensive Majors for this scholarship, and thus are eligible for support.
T-STEM Challenge Scholarship Program	Started 6/1/2012, ends 2/28/2014	Texas Higher Education Coordina-ting Board	With SAC. increase the number of graduating students in STEM, provide up to $5000 in scholarships to STEM students, and increase the number of graduates working in STEM fields.	79 for NVC in the first year	NVC STEM students	Biomedical majors will benefit from the efforts to improve progress towards graduation in STEM, and will benefit from eligibility for scholarship funds.
Partnership for Research and Education in Materials (PREM)	2009-2013	NSF	In partnership with Univ Texas at San Antonio (UTSA), Univ Texas Health Science Center-San Antonio (UTHSCSA), and Northwestern University, NVC receives opportunities for undergraduate research in nanomedical technologies at UTSA.	variable	All NVC students	Biomedical students will receive opportunities for undergraduate research in nanomedical technologies at UTSA, increasing interest in biomedical careers and improving persistence.

Project CIMA (pending funding)	2013 to 2015 (pending funding)	NSF, through LSAMP B2B program	Improve recruitment and retention of STEM majors, deepen and broaden student engagement and learning in STEM, and facilitate and improve the transfer experience for students transferring to universities.	180	STEM students in SAC and NVC, particularly those with diverse backgrounds	Biomedical majors will benefit from this STEM-targeting program through improved academic performance, improved persistence, and improved transfer experience.
Math and Science Advocacy Center (MSAC)	n/a	NVC	This is a learning environment dedicated to helping math and science students with: content mastery; time management; scheduling problems; drop counseling; and, study access to reference models for science labs.	No limit	Any NVC math or science student	The MSAC provides resources to increase persistence for biomedical students, including: supplemental instruction and tutoring; mentoring; assisting with course scheduling issues; and general study skills support. Biomed undergrads can benefit from the peer tutoring and other academic support offered through this center.

Table 6. Summary of 10 Representative Research Mentors at TxState(*) and TBRI(†)

Faculty Name	Insti-tution	Department	Research Area	Current Research Funding *(Dates, Role, Source, Title)*
Raul A. Bastarrachea, MD	TBRI	Genetics	complex metabolic traits, with a major focus in the areas of cardiovascular disease, obesity, and type 2 diabetes	2008-2013 (Co-investigator) **NIH-NHLBI**, "Genetics of Atherosclerosis in Mexican Americans - Project 3: Identification of Obesity-Related QTLs"; 2008-2013 (Co-investigator) **NIH-NHLBI**, "Diet and Genotype in Diet and Genotype in Primate Atherosclerosis - Project 4: Pleiotropic Effects on Obesity and Lipoproteins"; 2009-2014 (co-investigator) **NIH-OD**, "Southwest National Primate Research Center - Chronic Diseases: Metabolic Profiling in Baboons"; 2010-2013 (Co-investigator) **Baylor Research Institute**, "Reversal of STZ-induced diabetes using ultrasound destruction of microbubbles for the delivery of genes to the baboon pancreas"
Rachell E. Booth, PhD	TxState	Chemistry and Biochemistry	structure-function relationships within the epithelial sodium channel in model yeast	2011-2014 (coPI) **NIH**, "Structure-Function of the Epithelial Sodium Channel (ENaC)"; 2012-2015 (senior personnel) **NSF**, "A Chemistry REU on Molecular Innovation and Entrepreneurship (CheMIE)"
Shelley A. Cole, PhD	TBRI	Genetics	molecular genetic variation and how it affects inter-individual variation in disease risk (particularly heart disease, type 2 diabetes and obesity)	2006-2013 (PI) **NIH-NHLBI,** "Strong Heart Family Study"; 2008-2013 (subcontract PI) **NIH-NHGRI,** "Genetic Epidemiology of Causal Variants Across the Life Course"; 2009-2013 (Co-investigator) **NIH-NIDDK,** "Obesity and Diabetes Familial Risk in Hispanic Children"; 2008-2013 (Co-RI) **NIH-NHLBI,** "Genetics of Atherosclerosis in Mexican Americans - Project 3: Identification of Obesity-Related QTLs"; 2008-2013 (Co-RI) **NIH-NHLBI,** "Diet and Genotype in Primate Atherosclerosis - Project 4: Identifying Genes for Obesity QTLs Related to CVD"; 2012-2016 (Co-investigator) **NIH-NIDDK,** "Comprehensive SNP Discovery in SLC2A9 - A Candidate Gene for Uric Acid Nephropathy"; 2012-2016 (Subcontract PI) **NIH-NIEHS,** "Arsenic Exposure, Genetic Determinants and Diabetes Risk in a Family Study"

Anthony Comuzzie, PhD	TBRI	Genetics	genetics of complex metabolic traits (cardiovascular disease, obesity, and type 2 diabetes)	2008-2013 (project leader) **NIH-NHLBI**, "Diet and Genotype in Primate Atherosclerosis - Project 4: Pleiotropic Effects on Obesity and Lipoproteins"; 2008-2013 (project leader) **NIH-NHLBI**, "Genetics of Atherosclerosis in Mexican Americans - Project 3: Identification of Obesity-Related QTLs"; 2009-2014 (project leader) **NIH-OD**, "Chronic Diseases: Metabolic Profiling in Baboons"; 2009-2013 (subcontract PI) **NIH-NIDDK**, "Obesity and Diabetes Familial Risk in Hispanic Children"; 2012-2017 (co-investigator) **NIH-NHLBI**, "Whole Genome Sequencing to Identify Causal Variants Influencing CVD Risk"; 2012-2016 (Co-investigator) **NIH-NIDDK**, "Comprehensive SNP Discovery in SLC2A9 A Candidate Gene for Uric Acid Nephropathy"; 2006-2012 (Co-investigator) **NIH-NHLBI** "Strong Heart Family Study"
L. Kevin Lewis, PhD	TxState	Chemistry and Biochemistry	double-strand DNA break repair	2012-2015 (PI) **NIH,** "Genome-wide analysis identifies genes required for repair of DNA strand breaks"
Corina Maeder, PhD	TxState	Chemistry and Biochemistry	how nucleic acid-protein interactions regulate assembly of large cellular macromolecular complexes using the spliceosome as a model complex	2012-2014 (PI) **Research Corporation for Science Advancement**, to identify key elements in proteins regulating the splicing helicase Brr2; (PI) **TxState Research Enhancement Award**, to identify residues critical for funciton in an essential splicing helicase
Ronald B. Walter, PhD	TxState	Chemistry and Biochemistry	use of fish model systems to study molecular determinants of carcinogenesis using: melanoma models (*Xiphophorus* interspecies hybrids); transcriptomics and genomics; and, molecular genetics involved in complex traits (various)	2010-2012 (Co-PI) **NSF RAPID**, "Collaborative Research: Genetic Impact of the Deepwater Horizon Oil Release"; 2011-2016 (PI) **NIH-ORIP**, "Enhanced development of the Xiphophorus Model System"; 2011-2015 (Co-PI) **NIH-ORIP**, "Advancing the Scientific Potential of Transcriptomics in Aquatic Models"; 2012-2014 (PI) **NIH-ORIP**, "Supplement to Promote Diversity in Health-Related Research"; 2012-2014 (Co-PI) **Japan Society for the Promotion of Science**, Young Researcher Overseas Program, "Transcriptome Expression Analyses of Sexual Reversal in the Wrasse"

Shannon E. Weigum, PhD	TxState	Biology	microfluidic sensor platforms for disease diagnostics	2012-2014 (Subcontract PI) **NIH/NIAID** "Development of a Paper Microfluidic Platform for Viral Gastroenteritis"; (Project PI) **TxState Faculty Research Enhancement Program**, "2-D and 3-D Paper-based Microfluidic Devices for Detection of Intestinal Pathogens"
Steven T. Whitten, PhD	TxState	Chemistry and Biochemistry	structural thermodynamics of protein macromolecules (focus on allosteric regulation)	2011-2013 (PI) **Research Corporation for Scientific Advancement**, "Role of unfolded protein in functional allostery: multi-domain control of DNA binding in the tumor suppressor protein p53"; 2012-2017 (PI) **NSF** "Preliminary studies to investigate the biological activity of intrinsically disordered protein, using p53 as a model system"; 2012-2017 (co-PI) **NSF**, "Texas State University PREM: Center on Interfaces in Materials. A Partnership with the Research Triangle MRSEC"; 2012-2013 (PI) **TxState**, "Structural characterization of the protein ensemble by equilibrium unfolding methods"
Sarah Williams-Blangero, PhD	TBRI	Genetics	genetic epidemiology of complex diseases	2008-2013 (PI) **NIH-NIA**, "Genetic Determinants of Human Transcriptional Aging"; 2009-2014 (PI) **NIH-NHLBI**, "Genetic Epidemiology of Chagas Disease Progression"; 2009-2014, (Co-investigator) **NIH-NCRR**, "Southwest National Primate Research Center"; 2009-2014 (Co-investigator) **NIH-NIDCR**, "Genetic Architecture of a Human Dentognathic Complex"; 2009-2014 (Co-investigator) **NIH-NIAMS** "Genetics of Bone Structure and Metabolism"; 2011-2016 (Co-investigator) **NIH-NCRR**, "Establishment and Maintenance of a Closed SPRC SPF Colony"

Abbreviations: **TxState** - Texas State University - San Marcos; **TBRI** - Texas Biomedical Research Institute (formerly Southwest Foundation for Biomedical Research)

***** Per directions in the guidelines, these are **only 6 of our 20** total TxState research mentors (3 are minorities)

† These are only **4 of the 11** total TBRI research mentors