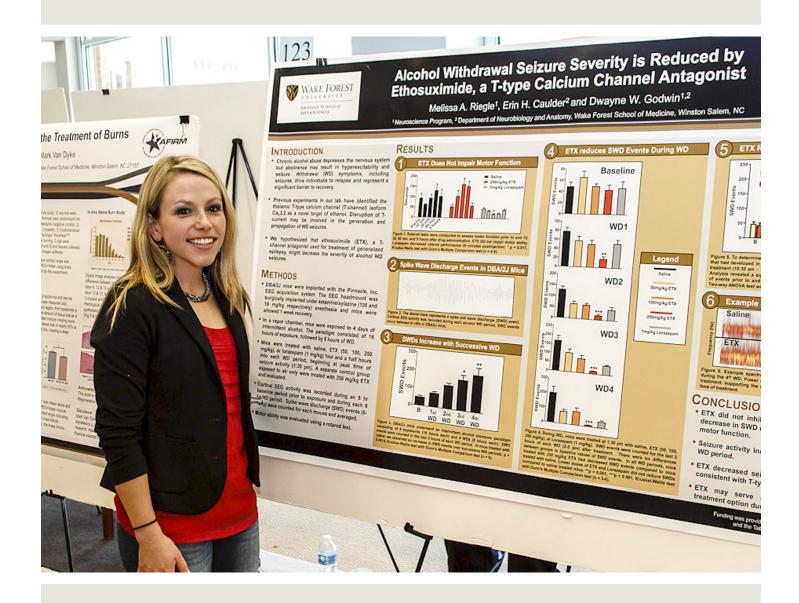
Annual Report 2012-2013

WAKE FOREST UNIVERSITY GRADUATE SCHOOL OF ARTS AND SCIENCES





1

Table 1. Application Summary Fall 2012

Degree Program	# Applications	# Accepted	# Enrolled
Biomedical Engineering MS	62	4 (6%)	2 (50%)
Biomedical Engineering PhD	139	51 (37%)	30 (59%)
Biomedical Engineering MD/PhD	14		
Clinical and Population Translational			
Sciences MS	9	6 (67%)	3 (50%)
Comparative Medicine MS			
Integrative Physiology and			
Pharmacology PhD	39	9 (23%)	5 (56%)
Integrative Physiology and			
Pharmacology MD/PhD	3	1 (33%)	1 (100%)
Molecular and Cellular			
Biosciences PhD	247	28 (11%)	14 (50%)
Molecular and Cellular			
Biosciences MD/PhD	37	3 (8%)	1 (33%)
Neuroscience PhD	101	15 (15%)	6 (40%)
Neuroscience MD/PhD	17	2 (12%)	1 (50%)
TOTAL	668	119 (18%)	63 (53%)

Table 2. Applicant Profile Fall 2012

Degree Program	Male	Female	Not Reported	TOTAL	American Indian/ Alaska Native	Asian	Black or African American	Hispanic / Latino	Native Hawaiian/ Pacific Islander	White	Two or More Races	Non- resident Alien	Not Reported
Biomedical Engineering MS	25	36	1	62		5	1			25		31	
Biomedical Engineering PhD	72	64	3	139		20	3	2		56	3	51	4
Biomedical Engineering MD/PhD	12	2		14		2				11			1
Clinical and Population													
Translational Sciences MS	3	6		9		2				6	1		
Comparative Medicine MS													
Integrative Physiology and													
Pharmacology PhD	18	21		39				2		15	1	19	2
Integrative Physiology and													
Pharmacology MD/PhD	2	1		3		1		1		1			
Molecular and Cellular													
Biosciences PhD	109	138		247	1	11	18	7		93	3	110	4
Molecular and Cellular													
Biosciences MD/PhD	26	11		37		5	2	4		23			3
Neuroscience PhD	50	51		101	1	6	6	3		54	1	23	7
Neuroscience MD/PhD	10	7		17		2	1	1		11			2
TOTAL	327	337	4	668	2	54	31	20		295	9	234	23

Table 3. Applicant Average Test Scores and GPA Fall 2012

Degree Program	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT
Biomedical Engineering MS	154	159	313	3.8	3.3	103	
Biomedical Engineering PhD	156	161	317	4.1	3.6	97	
Biomedical Engineering MD/PhD					3.7		34
Clinical and Population							
Translational Sciences MS	153	148	301	4.5	3.5		
Comparative Medicine MS							
Integrative Physiology and							
Pharmacology PhD	153	155	308	3.6	3.4	104	
Integrative Physiology and							
Pharmacology MD/PhD					3.8		32
Molecular and Cellular							
Biosciences PhD	155	156	311	3.7	3.4	99	
Molecular and Cellular							
Biosciences MD/PhD					3.8		34
Neuroscience PhD	157	156	313	4.1	3.4	95	
Neuroscience MD/PhD					3.8		34
AVERAGE	155	157	312	3.9	3.4	99	32

Table 4. Accepted Student Profile Fall 2012

Degree Program	Male	Female	Not Reported	TOTAL	American Indian/ Alaska Native	Asian	Black or African American	Hispanic / Latino	Native Hawaiian/ Pacific Islander	White	Two or More Races	Non- resident Alien	Not Reported
Biomedical Engineering MS		4		4						4			
Biomedical Engineering PhD	22	29		51		5	2	2		27	2	11	2
Biomedical Engineering MD/PhD													
Clinical and Population													
Translational Sciences MS	2	4		6						6			
Comparative Medicine MS													
Integrative Physiology and													
Pharmacology PhD	5	4		9				1		4		3	1
Integrative Physiology and													
Pharmacology MD/PhD		1		1		1							
Molecular and Cellular													
Biosciences PhD	9	19		28	1		3			18		5	1
Molecular and Cellular													
Biosciences MD/PhD	3			3			1			1			1
Neuroscience PhD	6	9		15	1			1		8		1	4
Neuroscience MD/PhD	1	1		2						1			1
TOTAL	48	71		119	2	6	6	4		69	2	20	10

Table 5. Accepted Student Average Test Scores and GPA Fall 2012

D D	GRE	GRE	(U O)	GRE	CD4	TOFFI	MOAT
Degree Program	Verbal	Quantitative	(V+Q)	Analytical	GPA	TOEFL	MCAT
Biomedical Engineering MS	160	160	320	4.6	3.6		
Biomedical Engineering PhD	156	160	316	4.3	3.6	105	
Biomedical Engineering MD/PhD							
Clinical and Population							
Translational Sciences MS	151	147	298	4.5	3.5		
Comparative Medicine MS							
Integrative Physiology and							
Pharmacology PhD	156	156	312	3.9	3.6	91	
Integrative Physiology and							
Pharmacology MD/PhD							36
Molecular and Cellular							
Biosciences PhD	157	157	314	4.2	3.6	111	
Molecular and Cellular							
Biosciences MD/PhD							37
Neuroscience PhD	162	159	321	4.6	3.5		
Neuroscience MD/PhD							35
AVERAGE	157	158	315	4.3	3.5	103	30

Table 6. Matriculated Student Profile Fall 2012

Degree Program	Male	Female	Not Reported	TOTAL	American Indian/ Alaska Native	Asian	Black or African American	Hispanic / Latino	Native Hawaiian/ Pacific Islander	White	Two or More Races	Non- resident Alien	Not Reported
Biomedical Engineering MS		2		2						2			
Biomedical Engineering PhD	11	19		30		2	3	1		18	1	5	
Biomedical Engineering MD/PhD													
Clinical and Population													
Translational Sciences MS	1	2		3						3			
Comparative Medicine MS													
Integrative Physiology and													
Pharmacology PhD	3	2		5						3		2	
Integrative Physiology and Pharmacology MD/PhD		1		1		1							
Molecular and Cellular Biosciences PhD	4	10		14	1		2			9		2	
Molecular and Cellular	4	10		14	1					9		2	
Biosciences MD/PhD	1			1						1			
Neuroscience PhD	3	3		6	1				_	2		1	2
Neuroscience MD/PhD		1		1									1
TOTAL	23	40		63	2	3	5	1		38	1	10	3

Table 7. Matriculated Student Average Test Scores and GPA Fall 2012

	GRE	GRE		GRE			
Degree Program	Verbal	Quantitative	(V+Q)	Analytical	GPA	TOEFL	MCAT
Biomedical Engineering MS	164	158	322	4.8	3.4		
Biomedical Engineering PhD	156	160	316	4.3	3.6	103	
Biomedical Engineering MD/PhD							
Clinical and Population							
Translational Sciences MS	148	149	297	4.5	3.6		
Comparative Medicine MS							
Integrative Physiology and							
Pharmacology PhD	159	160	319	4.1	3.5	91	
Integrative Physiology and							
Pharmacology MD/PhD							36
Molecular and Cellular							
Biosciences PhD	156	155	311	4.1	3.6		
Molecular and Cellular							
Biosciences MD/PhD							40
Neuroscience PhD	161	158	319	4.3	3.5		
Neuroscience MD/PhD							32
AVERAGE	157	158	315	4.3	3.5	99	29

Table 8. Student Enrollment by Program and Degree Fall 2012

Degree Program	PhD	MD/PhD	MS	Unclassified	TOTAL
Biochemistry and Molecular Biology	16	1			17
Biomedical Engineering - WFU	39		2		41
Biomedical Engineering - VT	66		7		73
Cancer Biology	16				16
Clinical and Population					
Translational Sciences			23		23
Comparative Medicine					
Integrative Physiology and					
Pharmacology	21				21
Microbiology and Immunology	15	1			16
Molecular and Cellular					
Biosciences	14				14
Molecular Genetics and Genomics	14				14
Molecular Medicine and					
Translational Science	22	1	1		24
Molecular Pathology	18				18
Neurobiology and Anatomy	4				4
Neuroscience	40	1			41
Unclassified				25	25
TOTAL	285	4	33	25	347

Table 9. Registered Student Profile Fall 2012

	In A	mer dian/ laska ative	A	sian	Afı	ck or ican erican		panic/	Haw Pa	ative aiian/ cific nder	w	7hite		or More	res	Non- sident Mien	Unk	nown	
Degree Program	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	TOTAL
Biochemistry and																			
Molecular Biology											5	10				2			17
Biomedical Engineering			3	3	4	2					30	50			13	9			114
Cancer Biology			1	1		2					5	6				1			16
Clinical and Population Translational Sciences					1						9	9			2		2		23
Comparative Medicine																			
Integrative Physiology and Pharmacology											9	5			4	3			21
Microbiology and Immunology						2							5	6		1	1	1	16
Molecular and Cellular Biosciences	1					2					2	7			1	1			14
Molecular Genetics and Genomics											5	5			2		1	1	14
Molecular Medicine and Translational Science			1	2	1	1					8	6			2	2	1		24
Molecular Pathology						2					3	7			2	3	1		18
Neurobiology and Anatomy											1	2				1			4
Neuroscience		1									15	18			3	1	1	2	41
MD/PhD§											2	1				1			4
TOTAL	1	1	5	6	6	11	0	0	0	0	92	125	5	6	29	24	7	4	322

 $\ensuremath{\mathbb{N}}\xspace$ Not included in totals - already counted in programs of study

Table 10. International Enrolled New Student Profile Fall 2012

Degree Program	Barbados	Cameroon	Canada	China	Colombia	Germany	Guyana	India	Indonesia	Iran	Israel	Jordan	Pakistan	Russian Federation	Taiwan	Total
Biomedical Engineering				2												2
Clinical and Population Translational Science																
Comparative Medicine																
Integrative Physiology and Pharmacology				1												1
Molecular and Cellular Biosciences				1				1								2
Neuroscience														1		1
TOTAL				4				1						1		6

Table 11. International Registered Student Profile Fall 2012

Degree Program	Barbados	Cameroon	Canada	China	Colombia	Germany	Guyana	India	Indonesia	Iran	Israel	Jordan	Pakistan	Russian Federation	Taiwan	Total
Biochemistry and																
Molecular Biology				1			1									2
Biomedical Engineering				6				1			1					8
Cancer Biology				1												1
Clinical and Population																
Translational Science		1											1			2
Comparative Medicine																
Integrative Physiology																
and Pharmacology	1		1	2				2				1				7
Microbiology and																
Immunology					1											1
Molecular and Cellular																
Biosciences				1				1								2
Molecular Genetics and																
Genomics								1	1							2
Molecular Medicine and																
Translational Science				1		1				1					1	4
Molecular Pathology				4					1							5
Neurobiology and																
Anatomy				1												1
Neuroscience						1		1			1			1		4
TOTAL	1	1	1	17	1	2	1	6	2	1	2	1	1	1	1	39

Table 12. Financial Aid Summary Fall 2012

	In	stitutional Sup	port	Е	xternal Supp	ort			
Degree Program	Graduate Fellowship	Non-grad Institutional	Teaching Assistantship	Individual Award	Research Grant	Training Grant	Self	Other	TOTAL
Biochemistry and Molecular Biology			1		14	2			17
Biomedical Engineering - WFU	5			5	30		1		41
Biomedical Engineering - VT§									0
Cancer Biology		4			5	6	1		16
Clinical and Population Translational Sciences***		1*				8**	14		23
Comparative Medicine									0
Integrative Physiology and Pharmacology	5	1		1	10	1		3	21
Microbiology and Immunology				1	10	5			16
Molecular and Cellular Biosciences	14								14
Molecular Genetics and Genomics			1		12			1	14
Molecular Medicine and Translational Science					19	1	1	3	24
Molecular Pathology				2	8	5	3		18
Neurobiology and Anatomy					3	1			4
Neuroscience	9		1	7	10	11	1	2	41
Unclassified***		5				8	12		25
TOTAL	33	11	3	16	121	48	33	9	274

§Virginia Tech support information not available

^{*}Tuition was funded by graduate and non-graduate institutional funds

^{**}Tuition was funded by graduate and training grant funds

^{***}Tuition Only

TABLE 13. DEGREES AWARDED BY PROGRAM AND DEGREE

CLASS OF 2012-2013

	PhD Programs			Mastara Duagrama	TOTAL
	PhD	MS	MD/PhD	Masters Programs	TOTAL
Biochemistry and Molecular Biology	4				4
Biomedical Engineering - WFU	2	2		3	7
Biomedical Engineering - VT	9			4	13
Cancer Biology	5	1			6
Clinical and Population Translational Sciences				5	5
Comparative Medicine					0
Integrative Phyiology and Pharmacology	2				2
Microbiology and Immunology	1				1
Molecular and Cellular Biosciences					0
Molecular Genetics and Genomics	3				3
Molecular Medicine and Translational Science	4	1			5
Molecular Pathology	8				8
Neurobiology and Anatomy	3				3
Neuroscience	6	1			7
TOTAL	47	5		12	64

TABLE 14. TIME TO DEGREE BY PROGRAM, CLASS OF 2012-2013

	PhD	MS
Biochemistry and Molecular Biology	4.75	
Biomedical Engineering	5.16	1.80
Cancer Biology	5.66	4.00
Clinical and Population Translational Sciences		2.33
Comparative Medicine		
Integrative Physiology and Pharmacology	5.00	
Microbiology and Immunology	4.33	
Molecular Genetics and Genomics	5.33	
Molecular Medicine and Translational Science	5.08	3.33
Molecular Pathology	5.33	
Neurobiology and Anatomy	6.55	
Neuroscience	5.05	3.00
AVERAGE	5.22	2.89

^{*}Average of years from matriculation to awarding of the degree

TABLE 15. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2012-2013, AY

D	Undergraduate	D	Diama
Program	Institution	Degree	Plans
BAMB	DePauw University	PhD	Post Doc, Harvard Medical School
	Guilford College		Post Doc, National Institute of Environmental
			Health Sciences, Research Triangle Park, NC
	Otterbein College		Post Doc, Ohio State University Medical Center
	Virginia Union University		Post Doc, Location Unknown
BMES	North Carolina State University	PhD	Biomedical Engineer Researcher, Altus Engineering
	Western New England University		Scientist, Starlight Insights
	North Carolina State University	MS	Research & Product Development Engineer, Cook Medical
	Virginia Tech		Research & Development Engineer, Johns Hopkins University
CABI	Guangxi Medical University	PhD	Internal Medicine Resident, Englewood Hospital
GILDI	Guru Gobind Singh Indraprastha Univ.	11115	Post Doc, Duke Eye Center
	Kennesaw State University		Post Doc, Scripps Institute
	UNC – Chapel Hill		Post Doc, Unknown
	Ursinus College		Intern, Medical Oncology, Greater Baltimore Medical Center
	Elon University	MS	Lab Tech, WFBHS
CPTS	Government College Lahore Pakistan	MS	Phlebology Fellowship, New York University
	James Madison University		Research, WFBHS
	Kenyon College		Assistant Professor, WFBHS
	University of Yaounde 1		Pursue PhD, Vanderbilt University
	Wake Forest University		Pursue PhD in Human Development & Family
	,		Studies, UNC-Greensboro
IPP	Ohio Northern University	PhD	Pharmacist & Research Liaison, Walter Reed National
	·		Military Medical Center
	University of Wisconsin - Oshkosh		Post Doc, Rosalind Franklin University
MICR	Appalachian State University	PhD	Teaching Fellowship, Virginia Commonwealth University
MOGN	Andhra University	PhD	Commercialization Associate, Wake Forest Innovations
	University of Calcutta		Post Doc, WFBHS
	•		Unknown
	University of Illinois		Unknown
MMTS	University of Georgia	PhD	Post Doc, Vanderbilt University
	University of Maine		Post Doc, Jackson Labs
	UNC-Greensboro		Post Doc, Virginia Tech
	Winthrop University		Post Doc, Vanderbilt University
	Shorter College	MS	Pursue PhD in Regenerative Medicine, UNC-Chapel Hill

TABLE 15. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2012-2013, AY

MCPA	Bob Jones University Emory & Henry College Fudan University North Carolina State University University of Georgia Wake Forest University	PhD	Post Doc, University of Texas, Southwestern Post Doc, WFBHS Post Doc, University of Texas, Southwestern Analyst for Security Management Company Post Doc, Cleveland Clinic Freelance Editor Program Chair, Veterinary Training Program, Sanford Brown College
	Wuhan University		Post Doc, WFBHS
NBAT	Appalachian State University Madras University National University of Cordoba	PhD	Assistant Program Manager, WFBHS Post Doc, University of California, San Francisco Post Doc, WFBHS
NEUR	College of William & Mary East Carolina University James Madison University Louisiana Tech University Purdue University Tulane University	PhD	Post Doc, University of Florida Post Doc, WFBHS Post Doc, WFBHS Medical Science Liaison, Allergan Post Doc, WFBHS Post Doc, University of Pennsylvania
	UNC-Greensboro	MS	Pursue PhD in Counseling, UNC-Greensboro

TABLE 16. DEGREE COMPLETION RATES

Masters - Fall 2011 PhD - Fall 2006

	Matriculated		Graduated		% Completion	
	PhD	MS	PhD	MS	PhD	MS
Biochemistry and Molecular Biology	4		4		100%	
Biomedical Engineering	4	1	4	1	100%	100%
Cancer Biology	7		6		86%	
Clinical and Population Translational Sciences		11				
Comparative Medicine						
Integrative Physiology and Pharmacology	5		4		80%	
Microbiology and Immunology	6		4		67%	
Molecular Genetics and Genomics	5		4		80%	
Molecular Medicine and Translational Science	3		2		67%	
Molecular Pathology	6		5		83%	
Neurobiology and Anatomy	5		4		80%	
Neuroscience	5		3		60%	
TOTAL	50	12	40	1	80%	100%