

Annual Report - 2014-2015

Wake Forest University Graduate School of Arts and Sciences



WAKE FOREST
UNIVERSITY



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GRADUATE SCHOOL *of*
ARTS & SCIENCES

Annual Report
2014-2015

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**Table 1. Application Summary
Fall 2014**

Degree Program	# Applications	# Accepted	# Enrolled
Biomedical Engineering MS	70	10 (14%)	4 (40%)
Biomedical Engineering PhD	160	38 (24%)	16 (42%)
Biomedical Engineering MD/PhD	20	1 (5%)	1 (100%)
Biomedical Science MS	36	15 (42%)	8 (53%)
Clinical and Population Translational Sciences MS	10	4 (40%)	4 (100%)
Integrative Physiology and Pharmacology PhD	27	7 (26%)	4 (57%)
Integrative Physiology and Pharmacology MD/PhD	6	0	0
Molecular and Cellular Biosciences PhD	191	17 (9%)	8 (47%)
Molecular and Cellular Biosciences MD/PhD	25	0	0
Neuroscience PhD	100	11 (11%)	6 (55%)
Neuroscience MD/PhD	17	1 (6%)	1 (100%)
TOTAL	662	104 (16%)	52 (50%)

Table 2. Applicant Profile
Fall 2014

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	40	30		70	1	7	2	1		19		36	4
Biomedical Engineering PhD	101	58	1	160		11	10	1		78		51	9
Biomedical Engineering MD/PhD	16	4		20				1		9			10
Biomedical Science MS	12	23	1	36		4	4	1		15		8	4
Clinical and Population Translational Sciences MS	4	6		10						7		3	
Integrative Physiology and Pharmacology PhD	18	9		27		1		1		12		12	1
Integrative Physiology and Pharmacology MD/PhD	5	1		6			1			4			1
Molecular and Cellular Biosciences PhD	80	111		191	4	9	11	5		87		64	11
Molecular and Cellular Biosciences MD/PhD	16	9		25			1			20			4
Neuroscience PhD	45	55		100		2	6	12		54		16	10
Neuroscience MD/PhD	11	6		17			1	1		9			6
TOTAL	348	312	2	662	5	34	36	23		314		190	60

**Table 3. Applicant Average Test Scores and GPA
Fall 2014**

Degree Program	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT
Biomedical Engineering MS	153	160	313	3.8	3.7	103	
Biomedical Engineering PhD	156	162	318	4.0	3.1	101	
Biomedical Engineering MD/PhD					3.8		35
Biomedical Science MS	153	155	308	3.9	3.4	100	
Clinical and Population Translational Sciences MS	151	157	308	3.5	3.5	101	
Integrative Physiology and Pharmacology PhD	152	159	311	3.6	3.5	99	
Integrative Physiology and Pharmacology MD/PhD					3.7		34
Molecular and Cellular Biosciences PhD	155	156	311	3.8	3.5	99	28
Molecular and Cellular Biosciences MD/PhD					3.7		33
Neuroscience PhD	156	156	312	4.0	3.4	96	
Neuroscience MD/PhD					3.8		32
AVERAGE	154	158	312	3.8	3.6	100	33

Table 4. Accepted Student Profile
Fall 2014

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	6	4		10		2				6		1	1
Biomedical Engineering PhD	21	17		38		3	3			22		6	4
Biomedical Engineering MD/PhD	1			1						1			
Biomedical Science MS	5	9	1	15		2	1	1		6		3	2
Clinical and Population Translational Sciences MS	2	2		4						3		1	
Integrative Physiology and Pharmacology PhD	4	3		7						5		1	1
Integrative Physiology and Pharmacology MD/PhD													
Molecular and Cellular Biosciences PhD	5	12		17	1	1				11		3	1
Molecular and Cellular Biosciences MD/PhD													
Neuroscience PhD	4	7		11			1			9			1
Neuroscience MD/PhD	1			1									1
TOTAL	49	54	1	104	1	8	5	1		63		15	11

**Table 5. Accepted Student Average Test Scores and GPA
Fall 2014**

Degree Program	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT
Biomedical Engineering MS	154	163	317	4.3			
Biomedical Engineering PhD	159	162	321	4.3	3.1	101	
Biomedical Engineering MD/PhD							35
Biomedical Science MS	155	153	308	4.2	3.4		
Cancer Biology PhD							
Clinical and Population Translational Sciences MS	161	154	315	4.0	3.7	113	
Comparative Medicine MS							
Integrative Physiology and Pharmacology PhD	146	155	301	3.6	3.7		
Integrative Physiology and Pharmacology MD/PhD							
Molecular and Cellular Biosciences PhD	157	157	314	3.9	3.5		
Molecular and Cellular Biosciences MD/PhD							
Molecular Medicine and Translational Science MS							
Neuroscience PhD	160	159	319	4.6	3.4		
Neuroscience MD/PhD							36
AVERAGE	156	159	314	4.1	3.5	107	36

Table 6. Matriculated Student Profile
Fall 2014

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		4						4			
Biomedical Engineering PhD	6	10		16		1	3			8		3	1
Biomedical Engineering MD/PhD	1			1						1			
Biomedical Science MS	3	5		8		1	1			5			1
Clinical and Population Translational Sciences MS	2	2		4						3		1	
Integrative Physiology and Pharmacology PhD	2	2		4						3		1	
Integrative Physiology and Pharmacology MD/PhD													
Molecular and Cellular Biosciences PhD	3	5		8		1				5		2	
Molecular and Cellular Biosciences MD/PhD													
Neuroscience PhD	2	4		6			1			4			1
Neuroscience MD/PhD	1			1		1							
TOTAL	22	30		52		4	5	0		33	0	7	3

**Table 7. Matriculated Student Average Test Scores and GPA
Fall 2014**

Degree Program	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT
Biomedical Engineering MS	154	163	317	4.3	3.9		
Biomedical Engineering PhD	159	162	321	4.3	3.1	101	
Biomedical Engineering MD/PhD					3.6		35
Biomedical Science MS	155	153	308	4.2	3.4		
Clinical and Population Translational Sciences MS	161	154	315	4.0	3.4		
Integrative Physiology and Pharmacology PhD	146	155	301	3.6	3.7		
Integrative Physiology and Pharmacology MD/PhD							
Molecular and Cellular Biosciences PhD	157	157	314	3.9	3.5		
Molecular and Cellular Biosciences MD/PhD					3.5		
Neuroscience PhD	160	159	319	4.6	3.4		
Neuroscience MD/PhD							36
AVERAGE	156	158	314	4.1	3.5	101	35

**Table 8. Student Enrollment by Program and Degree
Fall 2014**

Degree Program	PhD	MD/PhD	MS	Unclassified	TOTAL
Biochemistry and Molecular Biology	9				9
Biomedical Engineering - WFU	37	1	7		45
Biomedical Engineering - VT	52		5		57
Biomedical Science			28		28
Cancer Biology	18				18
Clinical and Population Translational Sciences			20		20
Comparative Medicine					
Integrative Physiology and Pharmacology	15				15
Microbiology and Immunology	11	1			12
Molecular and Cellular Biosciences	8				8
Molecular Genetics and Genomics	13				13
Molecular Medicine and Translational Science	23		3		26
Molecular Pathology	6				6
Neurobiology and Anatomy	2				2
Neuroscience	29	5			34
Unclassified				15	15
TOTAL	223	7	63	15	308

**Table 9. Registered Student Profile
Fall 2014**

Degree Program	Amer Indian/ Alaska Native		Asian		Black or African American		Hispanic/ Latino		Native Hawaiian/ Pacific Islander		White		Two or More Races		Non- resident Alien		Unknown		TOTAL
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Biochemistry and Molecular Biology											3	6							9
Biomedical Engineering			3	3	2	6					27	38			14	9	1		103
Biomedical Science				1	4	8	1				7	5			1		1		28
Cancer Biology	1		1	1							5	6			1		2	1	18
Clinical and Population Translational Sciences				1		1					6	9				1	1	1	20
Comparative Medicine																			
Integrative Physiology and Pharmacology											10	3			4	3			20
Microbiology and Immunology						1					5	5			1				12
Molecular and Cellular Biosciences				1							3	2				2			8
Molecular Genetics and Genomics											5	5			3				13
Molecular Medicine and Translational Science			1	1	2	3					11	4			1	2	1		26
Molecular Pathology						2					2	2							6
Neurobiology and Anatomy											1					1			2
Neuroscience			1			1					11	17					2	3	35
MD/PhD§			1																1
TOTAL	1	0	6	8	8	22	1	0	0	0	96	102	0	0	25	18	8	5	300

§Not included in totals - already counted in programs of study

**Table 10. International Enrolled New Student Profile
Fall 2014**

Degree Program	Barbados	Cameroon	Canada	China	Colombia	Germany	Guyana	India	Indonesia	Iran	Ireland	Jordan	Nepal	Russian Federation	Viet Nam	Total
Biomedical Engineering			1	4				1		2						8
Biomedical Science								1								1
Cancer Biology				1												1
Clinical and Population Translational Science								1								1
Comparative Medicine																
Integrative Physiology and Pharmacology	1			2				2		1						6
Molecular and Cellular Biosciences				1												1
Molecular Genetics and Genomics				1				1	1							3
Molecular Medicine and Translational Science								1		1	1					3
Neuroscience															1	1
TOTAL	1		1	9				7	1	4	1				1	25

**Table 11. International Registered Student Profile
Fall 2014**

Degree Program	Barbados	Canada	China	Colombia	Germany	India	Indonesia	Iran	Ireland	Israel	Jordan	Nepal	Russian Federation	Viet Nam	Total
Biochemistry and Molecular Biology															
Biomedical Engineering		1	4			1		2		1					9
Biomedical Science						1									1
Cancer Biology			1												1
Clinical and Population Translational Science						1									1
Comparative Medicine															
Integrative Physiology and Pharmacology	1		2			2		1							6
Microbiology and Immunology				1											1
Molecular and Cellular Biosciences			1												1
Molecular Genetics and Genomics			1			1	1								3
Molecular Medicine and Translational Science						1		1	1						3
Molecular Pathology															
Neurobiology and Anatomy			1												1
Neuroscience														1	1
TOTAL	1	1	10	1	0	7	1	4	1	1	0	0	0	1	28

Table 12. Financial Aid Summary
Fall 2014

Degree Program	Institutional Support			External Support			Self	Other	TOTAL
	Graduate Fellowship	Non-grad Institutional	Teaching Assistantship	Individual Award	Research Grant	Training Grant			
Biochemistry and Molecular Biology	1		1	1	5	1			9
Biomedical Engineering - WFU	4			4	21	2			31
Biomedical Engineering - VT§									0
Biomedical Science***							28°		28
Cancer Biology		2		6	3	7			18
Clinical and Population Translational Sciences***		2*				8**	10		20
Comparative Medicine									0
Integrative Physiology and Pharmacology	4	1		1	9	2	1	2	20
Microbiology and Immunology	1			1	6	4			12
Molecular and Cellular Biosciences	6								6
Molecular Genetics and Genomics	1			1	9	1	1		13
Molecular Medicine and Translational Science	2			1	15	1	3	4	26
Molecular Pathology	1			1	1	1			4
Neurobiology and Anatomy					2				2
Neuroscience	8		1	10	5	7	3		34
Unclassified***		2				13			15
TOTAL	28	7	2	26	76	47	46	6	238

§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

°Tuition was funded by graduate funds and student self pay

TABLE 13. DEGREES AWARDED BY PROGRAM AND DEGREE

CLASS OF 2014-2015

	PhD Programs		Masters Programs	TOTAL
	PhD	MD/PhD		
Biochemistry and Molecular Biology	3			3
Biomedical Engineering - WFU	12		5	17
Biomedical Engineering - VT				0
Biomedical Science			20	20
Cancer Biology	4			4
Clinical and Population Translational Sciences			8	8
Comparative Medicine				0
Integrative Physiology and Pharmacology	3			3
Microbiology and Immunology	5			5
Molecular Genetics and Genomics	1			1
Molecular Medicine and Translational Science	1			1
Molecular Pathology	2			2
Neurobiology and Anatomy	1			1
Neuroscience	7	1		8
TOTAL	39	1	33	73

TABLE 14. TIME TO DEGREE BY PROGRAM, CLASS OF 2014-2015

	PhD	MS
Biochemistry and Molecular Biology	5.33	
Biomedical Engineering	5.69	1.86
Biomedical Science		1.98
Cancer Biology	6.91	
Clinical and Population Translational Sciences		3.16
Comparative Medicine		
Integrative Physiology and Pharmacology	5.11	
Microbiology and Immunology	5.46	
Molecular Genetics and Genomics		
Molecular Medicine and Translational Science		
Molecular Pathology	5.66	
Neurobiology and Anatomy	6.33	
Neuroscience	5.33	
AVERAGE	5.73	2.33

*Average of years from matriculation to awarding of the degree

TABLE 15. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2014-2015, AY

Program	Undergraduate Institution	Degree	Plans
BICM	Clemson University	PhD	Post Doc, Johns Hopkins
	Davidson College		Post Doc, Unknown
	University of Florida		Unknown
BMES	North Carolina State University	PhD	Post Doc, North Carolina State University
	Anna University		Post Doc, University of Michigan
	Rensselaer Polytechnic Institute		Post Doc, KeraNetics, US Institute for Surgical Research
	Clemson University		Imaging Physicist, Unknown
	Colorado State University		Unknown
	University of Rochester		Post Doc, Unknown
	University of Tennessee, Knoxville		Technology Transfer/Licensing, Unknown
	George Washington University		Safety & Restraints Engineer, Nissan North America
	North Carolina State University		Unknown
	University of Rochester		Scientist, Biotech Company, Unknown
	Northern Arizona University		Researcher, Unknown
	University of Rochester		Post Doc, Unknown
	North Carolina State University		Unknown
	University of Rochester		MS
	North Carolina State University	Research & Development, Industry	
Manipal University	Unknown		
Pennsylvania State University	Scientist, Unknown		
BMSC	Amity University	MS	Associate, Biotech Company
	Kathmandu University		Unknown
	Meredith College		Unknown
	Clemson University		Research Scientist, Biotechnology Company
	Meredith College		Unknown
	Wake Forest University		Unknown
	Davidson College		Unknown
	Philadelphia University		Unknown
	Lewis and Clark College		Unknown
	Wake Forest University		Unknown
	Wittenberg University		Pursue PhD, WFUHS
Amity University India	Pursue PhD, WFUHS		
Wake Forest University	Unknown		
CABI	Washington University, St. Louis	PhD	Post Doc, Unknown
	University of Pennsylvania		Post Doc, Unknown
	University of Georgia		Post Doc, Unknown
	Wingate University		Post Doc, Unknown
CPTS	Brown University	MS	Unknown
	University of Nebraska, Lincoln		Unknown
	North Carolina State University		Physician, WFBHS
	Old Dominion University		Unknown
	Rajiv Gandhi University		Physician, WFBHS
	Indiana University, Bloomington		Physician, WFBHS
	University of California, San Diego		Physician, WFBHS
University of Health Sciences	Physician, WFBHS		

TABLE 15. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2014-2015, AY

IPP	University of Jordan North Gujarat University University of Guelph	PhD	Assistant Professor, The University of Jordan Unknown Unknown
MICR	North Carolina State University Pontificia Universidad Javeriana Kenyon College Washington & Lee University Virginia PolyTech	PhD	Licensing Associate, Nationwide Children's Hospital Post Doc, Scripps Research Institute Unknown Continuing in PhD PostDoc, Washington University in St. Louis
MOGN	Virginia Military Institute	PhD	Peace Corps
MMTS	Indiana University - Bloomington	PhD	Study Director of Toxicology, Covance
NBAT	Huazhong University of Science	PhD	Unknown
MCPA	University of Evansville Tuskegee University	PhD	Consultant, Deloitte Unknown
NEUR	Santa Cruz State University New Mexico Highlands University University of Alabama, Birmingham University of Florida University of Minnesota, Twin Cities College of William and Mary Pacific University The University of Tennessee	PhD	Post Doc, Albert Einstein College of Medicine Unknown Post Doc, Unknown Feasibility Analyst, Novella Clinical Post Doc, Columbia University Continuing in MD Program Post Doc, Colorado State University Post Doc, Unknown

TABLE 16. DEGREE COMPLETION RATES

Masters - Fall 2013

PhD - Fall 2008

	Matriculated		Graduated		% Completion	
	PhD	MS	PhD	MS	PhD	MS
Biochemistry and Molecular Biology	4		4		100%	
Biomedical Engineering	4	4	4	4	100%	100%
Cancer Biology	7		7		100%	
Clinical and Population Translational Sciences		2		1	50%	
Comparative Medicine						
Integrative Physiology and Pharmacology	4		3		75%	
Microbiology and Immunology	3		1		33%	
Molecular Genetics and Genomics	3		1		33%	
Molecular Medicine and Translational Science	6		4		67%	
Molecular Pathology	4		4		100%	
Neurobiology and Anatomy	2		0		0%	
Neuroscience	6	1	6	1	100%	100%
TOTAL	43	7	34	6	79%	60%