

2014

## 2014 Annual Report on UNLV Research Activity

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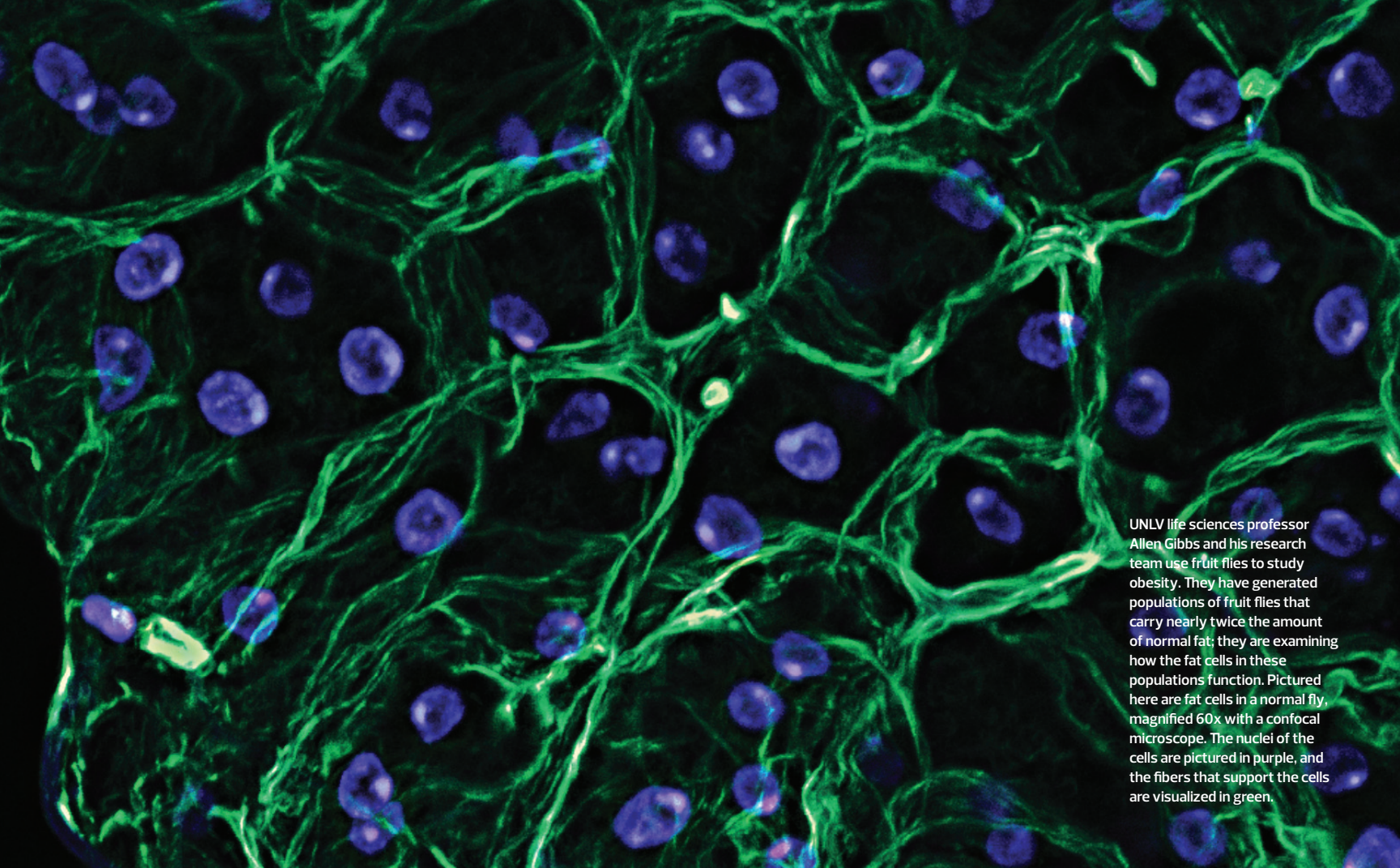
### Repository Citation

(2014) "2014 Annual Report on UNLV Research Activity," *UNLV Innovation*: Vol. 7, Article 11.

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UNLV life sciences professor Allen Gibbs and his research team use fruit flies to study obesity. They have generated populations of fruit flies that carry nearly twice the amount of normal fat; they are examining how the fat cells in these populations function. Pictured here are fat cells in a normal fly, magnified 60x with a confocal microscope. The nuclei of the cells are pictured in purple, and the fibers that support the cells are visualized in green.

## Division of Research and Economic Development

# 2014 ANNUAL REPORT ON UNLV RESEARCH ACTIVITY

The UNLV Division of Research and Economic Development reports annual data characterizing institutional research activity in order to evaluate campus research productivity and to facilitate benchmarking to promote future growth.

Various performance measures indicate that FY2014 was a productive year for UNLV researchers.

Research expenditures — funding spent by UNLV researchers during the last fiscal year — increased 12 percent to just over \$31 million. (Research expenditures are the gold standard for measurement of research productivity.) Total sponsored program expenditures, a broader measure reflecting the full scope of UNLV's grants and contracts activity, were up 8 percent to \$48 million.

Total sponsored program awards — funds available for use by researchers but not yet expended — increased by 38 percent to nearly \$60 million, the largest amount of award funding since 2010. Sponsored program proposals, meanwhile, increased by 41 percent for a total of \$286 million. Health Sciences, Engineering, and Sciences all posted substantial gains in funding. Both the colleges of Education and Hotel Administration also showed awards increases.

"This is a testament to the dedication of our faculty, staff, and

students, who are committed to research that advances their fields, impacts the community, and supports economic development," said Tom Piechota, Vice President for Research and Economic Development.

Other metrics for research and economic development activity also showed gains in FY2014. Research disclosures and patent filings, both important measures of economic development activity, each increased over the previous fiscal year thanks, in part, to the gaming innovation program that generated numerous patents.

Another measure of university research activity is the number of doctoral degrees conferred, as doctoral programs require a strong research component culminating in the doctoral dissertation. A decrease in doctoral degrees conferred in 2013-14 reflects closure of several graduate programs during the recession. However, increases in doctoral conferrals are anticipated in coming years given that doctoral headcount has begun to rebound.

Additionally, Institutional Review Board (IRB) approvals were up by 23 percent, an increase produced in large part by growth in the number of biomedical IRB approvals. The IRB is a committee designated to approve, monitor, and review biomedical and social/behavioral research involving human subjects in order to protect the rights and welfare of the research subjects.

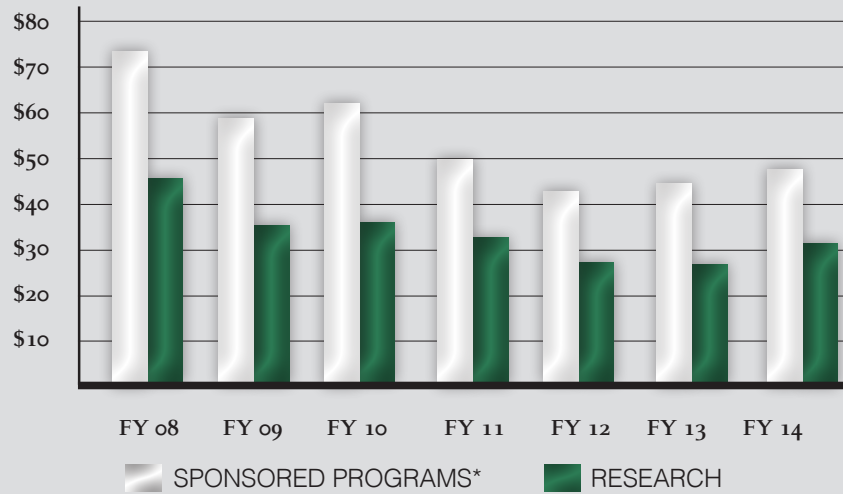
## SPONSORED PROGRAM ACTIVITY

### Expenditures

	Sponsored Programs*	Research
FY08	\$74,568,354	\$46,765,293
FY09	\$59,359,059	\$36,156,589
FY10	\$62,414,679	\$35,913,552
FY11	\$50,210,861	\$32,581,329
FY12	\$42,924,520	\$27,072,642
FY13	\$44,593,471	\$27,649,163
FY14	\$48,144,405	\$31,027,377

\*Sponsored programs include research, instruction and training, and other sponsored activity (i.e., public service, student services, etc.). Financial aid funding, which was previously reported in sponsored program data, is no longer included here. It has been removed beginning in FY2008.

Expenditures FY08-FY14, in millions

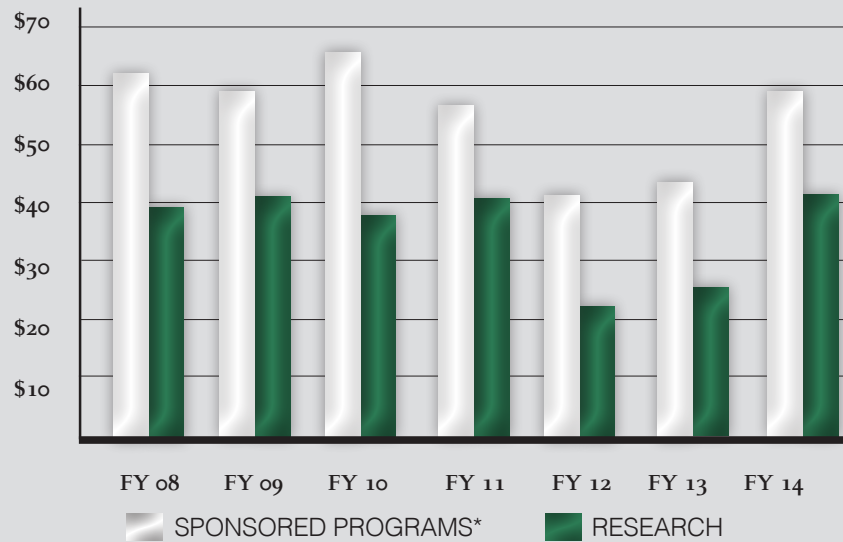


### Awards

	Sponsored Programs*	Research
FY08	\$61,139,758	\$39,844,720
FY09	\$59,874,418	\$40,097,479
FY10	\$65,222,872	\$38,381,001
FY11	\$56,090,962	\$40,398,054
FY12	\$40,772,216	\$22,565,629
FY13	\$43,204,579	\$26,585,099
FY14	\$59,636,152	\$41,477,222

\*Sponsored programs include research, instruction and training, and other sponsored activity (i.e., public service, student services, etc.). Financial aid funding, which was previously reported in sponsored program data, is no longer included here. It has been removed beginning in FY2008.

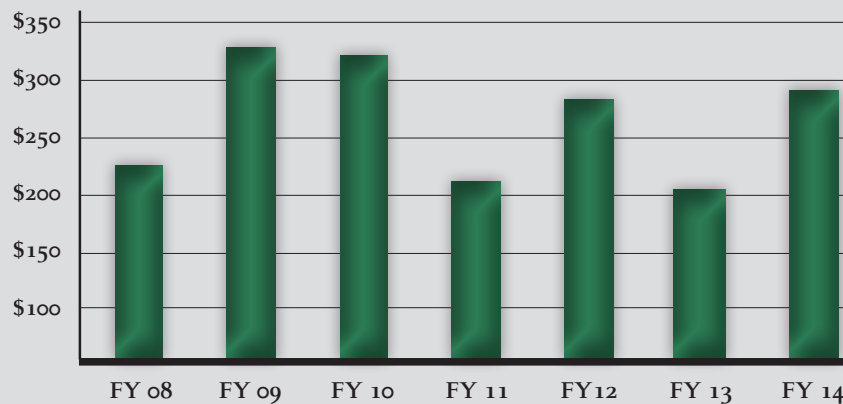
Awards FY08-FY14, in millions



### Proposals

FY08	\$228,366,587
FY09	\$326,594,089
FY10	\$323,327,776
FY11	\$210,857,602
FY12	\$281,270,704
FY13	\$203,337,011
FY14	\$286,087,223

Proposals FY08-FY14, in millions



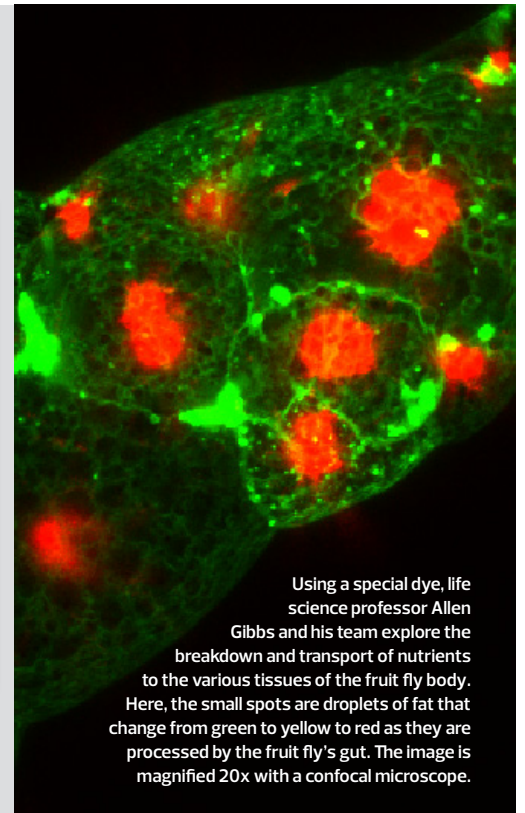


## UNLV AWARD DATA, FY14

Funding by College/Unit	Awards	Amount
Div Health Sciences	67	15,269,848
Engineering	122	13,836,444
Student Life*	27	12,352,815
Sciences	74	10,390,364
VPRED	8	2,959,494
Education	24	1,482,536
Liberal Arts	11	848,129
Hotel Administration	6	747,208
Harry Reid Center	7	534,661
Provost	5	442,737
Business	5	226,540
Urban Affairs	9	203,544
President's Office	1	155,080
Library	1	100,000
VP Finance	3	46,910
Fine Arts	6	34,357
VPEO	1	5,485
<b>Total</b>	<b>377</b>	<b>\$59,636,152</b>

Federal Agency	Awards	Amount
Health & Human Services	28	11,553,418
Education*	20	10,978,736
Energy	8	2,600,000
NSF	19	2,021,274
Defense	7	1,248,366
Agriculture	3	1,221,516
Housing & Urban Dev	1	650,000
Transportation	11	622,044
NASA	3	515,399
Justice	2	364,534
Interior	5	232,895
Homeland Security	1	50,000
<b>Total</b>	<b>108</b>	<b>\$32,058,182</b>

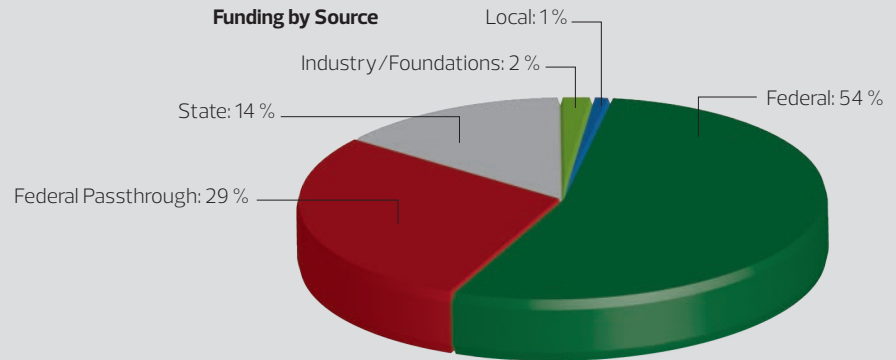
\*Financial aid funds (e.g., Pell grants and Millennium Scholarships) are no longer included in these amounts.



Using a special dye, life science professor Allen Gibbs and his team explore the breakdown and transport of nutrients to the various tissues of the fruit fly body. Here, the small spots are droplets of fat that change from green to yellow to red as they are processed by the fruit fly's gut. The image is magnified 20x with a confocal microscope.

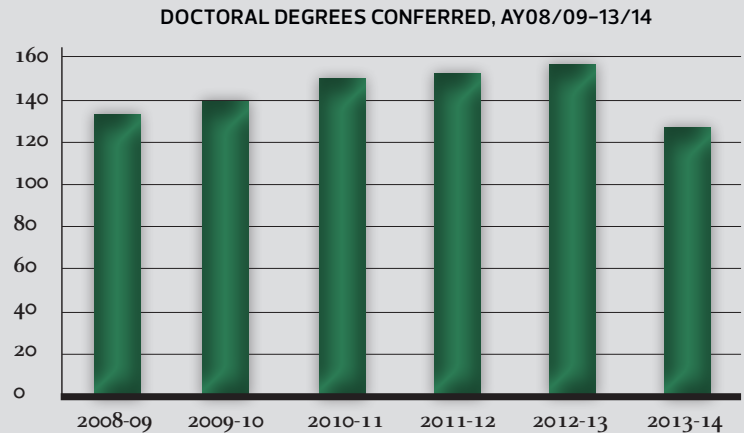
## SPONSORED PROGRAM FUNDING BY SOURCE, FY14

Sources of Funding	Awards	Amount
Federal	108	32,058,182
Federal Pass Through	164	17,295,145
State	41	8,098,629
Industry/Foundations	51	1,524,526
Local	13	659,670
<b>Total</b>	<b>377</b>	<b>\$59,636,152</b>



## DOCTORAL DEGREES CONFERRED, AY08/09-13/14

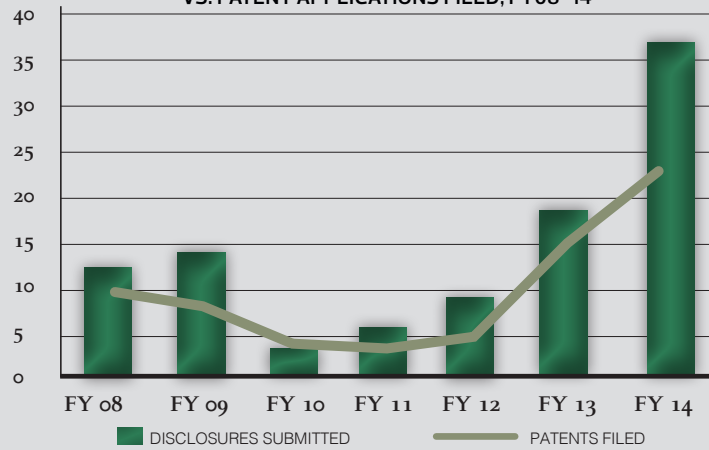
Academic Year	Number Conferred
2008-09	134
2009-10	140
2010-11	150
2011-12	153
2012-13	156
2013-14	124



## RESEARCH DISCLOSURES/PATENTS FILED, FY08-14

	Disclosures Submitted	Patents Filed
FY2008	13	10
FY2009	14	8
FY2010	3	4
FY2011	6	3
FY2012	9	5
FY2013	18	14
FY2014	37	28

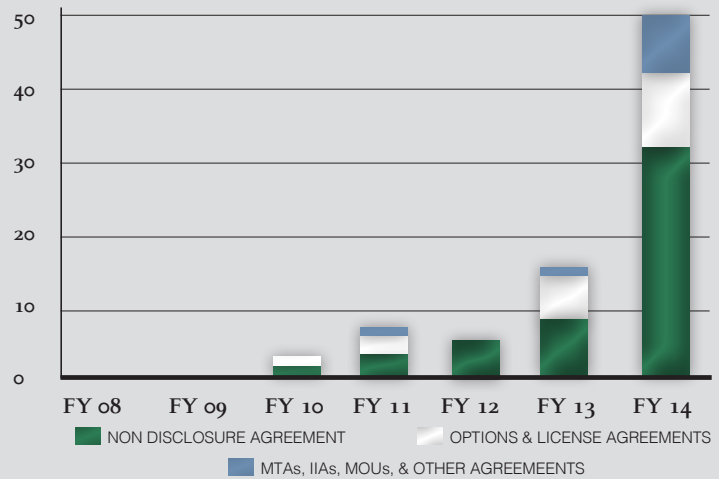
NUMBER OF RESEARCH DISCLOSURES SUBMITTED VS. PATENT APPLICATIONS FILED, FY08-14



## AGREEMENTS AND LICENSING REVENUE, FY08-14

Fiscal Year	Nondisclosure Agreements	Options & License Agreements	MTAs, IIAs, MOUs, & Other Agreements	Total	Total Licensing Revenue
FY2008	0	0	0	0	
FY2009	0	0	0	0	
FY2010	1	1	0	2	
FY2011	3	2	1	6	
FY2012	5	0	0	5	
FY2013	9	6	1	16	\$32,281
FY2014	33	9	8	50	\$81,155

NUMBER OF AGREEMENTS EXECUTED, FY08-14



MTA – Material Transfer Agreement  
 IIA – Inter-Institutional Agreement  
 MOU – Memorandum of Understanding

## INSTITUTIONAL REVIEW BOARD APPROVALS, FY08-14

	Biomedical	Social/ Behavioral	Total
FY08	61	235	296
FY09	75	254	329
FY10	91	228	319
FY11	93	230	323
FY12	75	214	289
FY13	77	184	261
FY14	122	200	322

NUMBER OF INSTITUTIONAL REVIEW BOARD APPROVALS, FY08-14

