



USTAR 6 Year Report FY12 Results Summary for the EAC

USTAR Governing Authority
www.innovationutah.com/

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USTAR Summary for EAC:



- **Program 1:** USTAR has proven that it can recruit “Star Faculty”. USTAR faculty are true catalysts, winning grants and enabling technology commercialization at a higher rate than traditional faculty.
- **Program 2:** USTAR buildings are acting as industry magnets and we expect industry-sponsored research to grow rapidly.
- **Program 3:**
 - USTAR TOIP teams are delivering impressive results and leading the innovation-based economic development initiatives for their respective regions.
 - Weber State University, Utah Valley University and Dixie State College have incorporated USTAR TOIP Directors into their leadership teams.

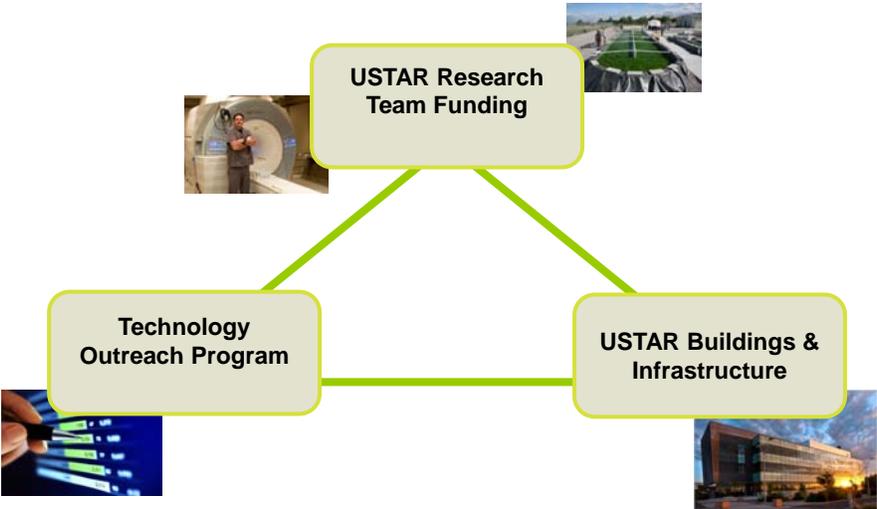
Utah Economic Development: Four Core Objectives



- 1 Strengthen and Grow Existing Utah Businesses, Both Urban and Rural
- 2 Increase Innovation, Entrepreneurship & Investment
- 3 Increase National and International Business
- 4 Prioritize Education to Develop the Workforce of the Future

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Utah Science Technology and Research (USTAR)



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graph TD; A[USTAR Research Team Funding] --- B[Technology Outreach Program]; A --- C[USTAR Buildings & Infrastructure]; B --- C;
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USTAR 6 Year Program 1 Results Overview

Category	Adjusted FY12 Plan	June 30, 2012 (Actuals)	Results vs Plan
State investment in USTAR research to date	\$95.6 Million		N/A
Faculty hiring activity	19 teams*	21 teams 51 faculty hires	↑
External research grants awarded through June 30, 2012	\$80.9 M*	\$131MM (\$86M UofU and \$45M USU)	↑
External research grants proposed for FY13 and beyond	No prospectus target	\$89M at U of U \$149M at USU	↑
Disclosures to date	~160	330 (142 Uof U 188 USU)	↑
Provisional patents and patents filed to date	No prospectus target	202 (106 UofU 96 at USU)	↑
Companies started in Utah to date	8*	9 (4 UofU and 5 USU) USU: 4 licensees 10+ active projects	↑

* Based on 61% of Prospectus (\$95.6 MM actual vs. \$157.7 MM in 2005 Prospectus) (Note: of the \$95.6MM, \$68.6MM is State and \$27MM is ARRA)

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- ## USTAR Projects are relevant: Aligned w Key Utah issues
- **AirQuality:** STORM (Sensors), WAVE (Electric bus with UTA)
 - **Water Management:** EPSCoR \$20M grant (USHE and Industry participants), Logan Lagoon Project, Metallosensors
 - **Energy:** Occutel (energy efficiency), CO2 Sequestration, Clean Coke Project in Price, Point Spectrum (Solar efficiency)
 - **Education:** Experiential learning at regional incubators, BioInnovations Gateway is training 10-12th graders
- USTAR Update 10/15/2012 Slide 6

USTAR Projects are relevant:
Aligned w Key Utah issues (cont)



- Healthcare: Theratarget (drug targeting); Araknitek (ligaments); Neuro disorders: PTSD (VA Hospital), Down Syndrome
- Transportation: USTAR Advanced Transportation Institute (UATI) and WAVE
- Homeland Defense and Security: Vaporsens (Meth sensor and bomb sniffing dog on a chip)

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Program 2: USTAR Research Buildings



Core Facilities w/in 208,000sf

- 18000 sf Nanofabrication center
- 5300 sf Microscopy Suite: Imaging resources
- Life science labs



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Program 2: USU Facilities and Infrastructure



October 7, 2010 ribbon cutting



USU USTAR Core Facilities

- Clinical nutrition center
- Bio Safety Level 3
- Vivarium
- Life science labs

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Biofuels Infrastructure



USU BEERC:
Hybrid Energy R&D Ctr
(primarily private investment)

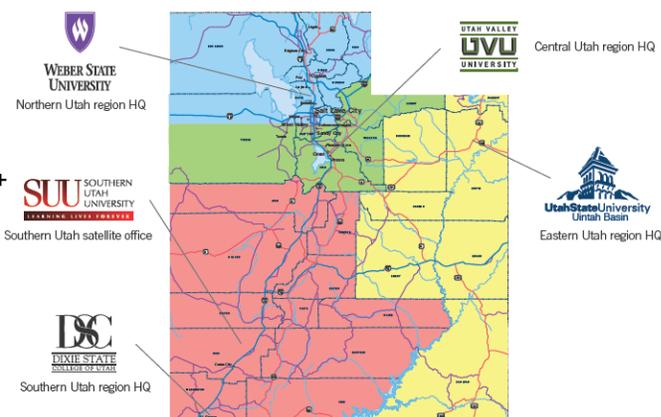


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Program 3: Regional Technology Outreach



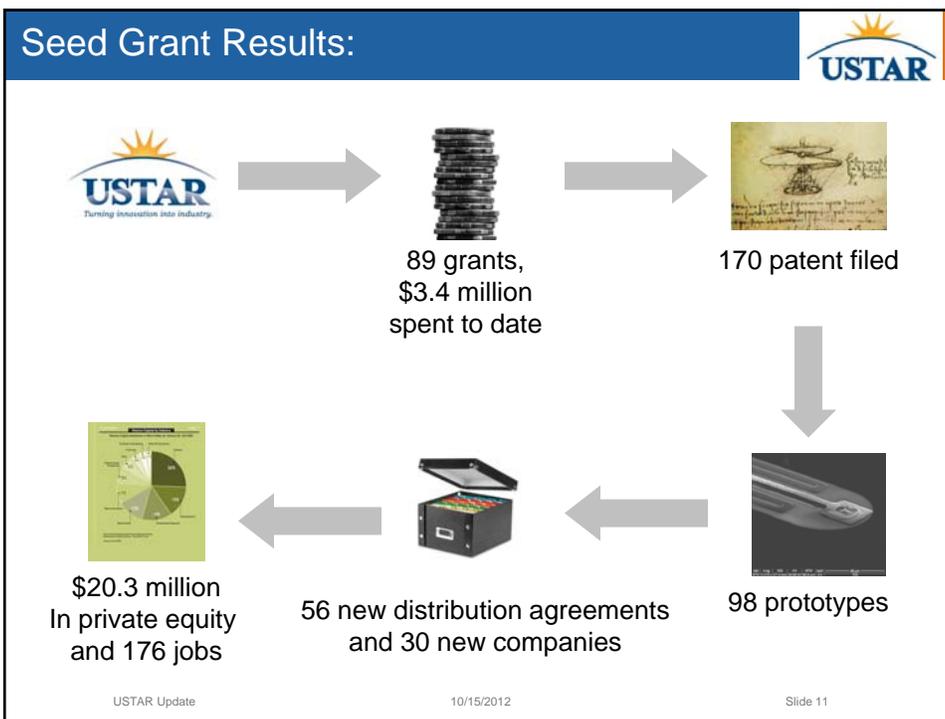
- In FY2012, 200+ projects in 21 of 29 counties
- Seed grant program (TCG) has yielded 98+ prototypes, 30+ new companies, 176+ new employees and over \$20.3 Million in new private capital
- Team is working with USTAR Faculty on over 20 commercialization projects



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SBIR/STTR Assistance Program National Recognition for Utah SSAP



Utah's SBIR-STTR Assistance Program (SSAP) is gaining recognition on a national scale and winning competitive federal program grants.

- **FY12 = \$50,000 FAST Grant**
- **FY13 = \$80,000 FAST Grant**
- **Serving over 80 clients from Dixie to Cache Valley**

Total of SBIR Wins and FAST Grants (since 2008):

\$4,906,469

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BiG Summary Accomplishments (FY12)

Summary: FY12 spending of \$250,000 (est)

- Produced first incubator graduate, BloXR corporation
- Established infrastructure for student-staffed, natural products contract research organization capable of analyzing finished goods to meet label requirements
- Reduced overhead expenses by participating in tenant company research and product development activities
- Raised \$27K in private funding

Since Inception (3 Years), eleven total companies have utilized the incubator to:

- Raise >\$12M in funding
- Create 25 jobs
- Employ and train 16 high school student interns
- Company participation includes: Control Medical, Distal Access, DxNA, EZ Lift Rescue Systems, Knudra, MesaGen, SimplicityMD, Symbion, Turner Labs, Veritract, Zien

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FY13 and FY14 Budget Overview: Details

See Packets for Details:

USTAR Budget Request for FY2013 and FY2014					Last updated: October 12, 2012	
	FY 2011 Actual	FY 2012 Actual	FY 2013 Budget	FY 2014 Base Budget	FY 2014 Building Block Requests	
Sources of Funding:						
General Fund-Ongoing	14,501,300	13,952,700	16,990,300	16,990,300	9,000,000	Note 1
General Fund-One-Time		540,500			3,000,000	
Federal Fund (\$33,000,000 in total)	17,115,649	-	-			
SBIR Fees	4,750	3,107	5,000			
Prior Year Carryforward ("Beginning Nonlapsing")	16,744,869	21,701,989	10,923,725	0		Note 2
Total Funds Available	48,366,568	36,198,296	30,919,025	16,990,300	9,000,000	
Uses of Funding:						
Outreach and Administration	2,530,734	2,509,762	2,726,400	1,995,300		TBD
Technology Commercialization Grants	2,463,808	401,569	300,000	-		TBD
University of Utah Research Team	12,730,038	14,192,640	15,422,886	8,997,000		TBD Note 3
Utah State University Research Team	8,939,999	8,170,600	12,469,739	5,998,000		TBD Note 4
U of U and USU Advance Payments	-	-				
Total Expenses	26,664,579	25,274,571	30,919,025	16,990,300	9,000,000	
Carryforward Remaining ("Closing Nonlapsing")	21,701,989	10,923,725	0	0	0	

Note 1: FY'14 Additional requests show difference between on-going funding and amount currently needed to run research program
 Note 2: SB240 in FY10 language states, "makes all money appropriated to the USTAR Governing Authority nonlapsing"
 Note 3: FY'14 UofU Forecast has been submitted to USTAR; Final base budget will be based on 60% of budget remaining after allocating \$1.995M to TOIP
 Note 4: FY'14 USU Forecast has been submitted to USTAR; Final base budget will be based on 60% of budget remaining after allocating \$1.995M to TOIP

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National Recognition:



- National Governor's Association: USTAR was featured in "2012 Growing State Economies Policy Framework Best Practices Guide"
- Brookings Institute: "USTAR has rapidly emerged as not just the state's primary innovation driver, but as a national best practice..."
- Nevada's Knowledge Fund and Idaho's iGEM: Cited USTAR as a model in 2011 and 2012 enabling legislation respectively

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Innovation Areas:

Energy 

BioDevice/ BioPharma 

Medical Imaging & Brain Medicine 

Nano-technology 

Imaging & Digital Media 



USTAR
Turning innovation into industry.

Discussion / Q and A

Key Links for additional information
 USTAR: www.innovationutah.com
 BIG: <http://innovationutah.com/BiG.html>
 SBIR: <http://innovationutah.com/sbir.html>



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Innovation Areas:

- Energy 
- BioDevice/ BioPharma 
- Medical Imaging & Brain Medicine 
- Nano-technology 
- Imaging & Digital Media 



THANK YOU

Key Links for additional information
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SBIR: <http://innovationutah.com/sbir.html>

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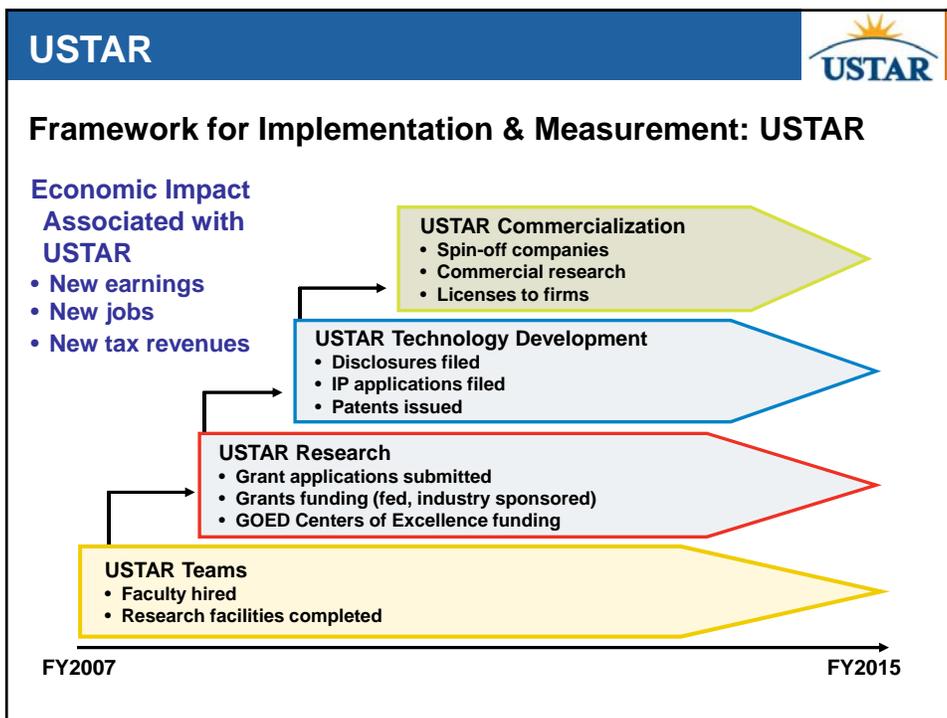
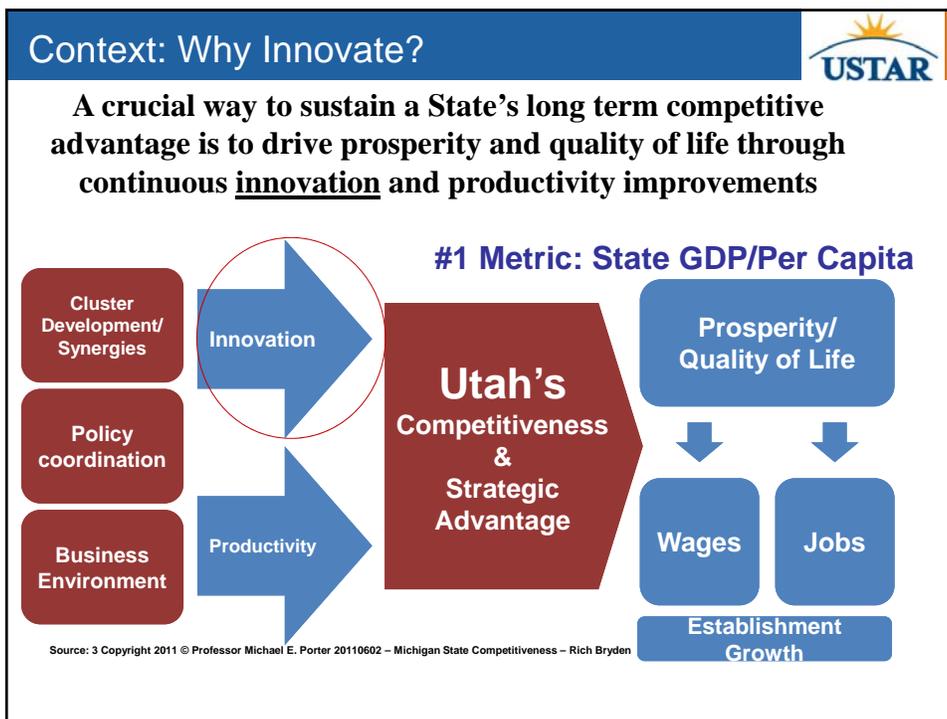
Innovation Areas:

- Energy 
- BioDevice/ BioPharma 
- Medical Imaging & Brain Medicine 
- Nano-technology 
- Imaging & Digital Media 



**Appendix:
Why Innovate?
Measurement Framework
Program 1, and Program 3 Result Details
6 Year Summary Finances**

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Program 1 Success Story: Recruiting All-Star Talent

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Program 3 Details: USTAR Directors

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Central Utah USTAR TOIP FY12 Results Summary



- FY12 spending of \$383,285
- Regional Economic Development
 - Created economic development strategy for UVU
 - Opened 25,000sf BRC and filled it to capacity in 3 months
 - TCG winners created 43 jobs, raised \$2.5 million in private capital, and generated \$1 million in sales
 - Won \$160k TCIPs & raised \$120k matching funds
 - Led implementation phase of the Digital Media UCAP
- USTAR Faculty Support
 - \$120k TCIPs won, \$240k matching funds secured
 - 8 disclosures, 4 patents, 6 clinical studies

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Southern Utah USTAR TOIP FY12 Results Summary



Summary: USTAR FY12 spending of \$322,168

- 12 TCG recipients created 2 companies, 17 prototypes, 3 new distribution agreements and 28 jobs
- Grew the ITRE Incubator Client base and impact (3 Companies Onsite, 12 Affiliate companies)
- Transitioned to Executive Director of Business Resource Center at Dixie State College

Details

- ITRE Incubator – Transitioning focus to mixed use “gazelle” companies which solve problems with tech innovation.
Ex. Duct Wizard, Scent Master, Referral.IM
- Success stories: IDT, Touch MD , Cumulus. Adding employees, increasing sales...big news on the horizon
- Integrated and expanded funding sources – UCAP, BEAR, BRC EDA grant application
- Restructured So. Utah TOIP programs for efficient deployment of personnel based on institutional missions and objectives

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Northern Utah USTAR TOIP FY12 Results Summary



Summary: USTAR FY12 spending of \$350k

2	41	37	\$450k	7	3
licensed technologies	projects	jobs created	investment/grants	TCIP grants	GrowAmerica grants

Funding/Outreach

- Enve Composites saved 10 jobs and created 15 due to TCG grant funded product testing device produced by UCAID. 324 new jobs are projected
- Expanded UCAID facility to 22,000 ft², \$500k partnership with Utah State
- Awarded 7 new TCIP Grants: Precision Targets, SelectPro, Theratarget, Smooth CAP, MedInno, Haemoscan, Torq Axle
- 5 Think Tank luncheons, 34 companies pitched

Startup Ogden

- Startup Weekend 1-3 November 12
- \$2.4m raised to date, March 13 launch



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Eastern Utah USTAR TOIP FY12 Results Summary



- FY12 spending of \$380,508
- Regional Economic Development
 - 2011-2012 Winter Ozone Study in Uintah Basi – Dr. Scott Hill directed study of precursors
 - Native Asphalt Solutions: 1st in USA approved UDOT specification for oil sand based asphalt
 - Carbon Sequestration: developing capability to bring EOR (enhanced oil recovery) CO2 flood technology to the Uintah Basin and expand in the Paradox Basin
- Faculty Support
 - Homeland Defense Nanoscience – Vaporsens, Inc. Awarded \$40K TCIP - 3 FTE
 - Alternative Energy – Nanosynth Sensor Technologies awarded CleanTech Open prize

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SSAP Program: Summary of "Wins" since 6/08



13 wins = \$4,756,469

Cache * Davis * Salt Lake * Utah Counties

13 – \$180,707 July 2012; Thermimage Inc.; NIH SBIR Phase I - Assist
12 – \$927,566 April 2012; JSK Technologies; NIH Fast-Track SBIR Phase II - Assist
11 – \$ 99,898 Jan. 2012; Box Elder Innovations; Air Force STTR Phase I – Assist
10 – \$500,000 Sept. 2011; Heavystone; NSF SBIR Phase II –Assist
9 – \$600,000 May 2011; Aribex; NASA; NSF SBIR Phase II –Assist
8 – \$150,00 May 2011; Metallo Sensors; NSF SBIR Phase I –Assist
7 – \$149,672 March 2011; Enclavix; NSF SBIR Phase I –Assist
6 – \$749,895 Dec. 2010; LiveWire; DoD AF SBIR Phase II –Assist
5 – \$ 99,500 Sept. 2010; JSK Technologies; NIH Fast-Track SBIR Phase I –Assist
4 – \$148,823 Sept. 2010; Silicon Technologies Inc.; DARPA SBIR Phase I –Assist
3 – \$ 89,408 April 2010; Wind Lift Technologies; USDA Phase I –Full Submission
2 – \$ 70,000 Sept. 2009; Aribex; NASA STTR Phase I –Assist
1 – \$1,000,000 Sept. 2008; New Path Technologies; STTR Phase II –Assist

Clients from Dixie to Box Elder County

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BiG Summary Accomplishments (FY10-12)



Company	Private Capital Funding Raised to date (24mo)	Earnings	# Employees	Plan to hire w/in 6 mos.	# Interns	Comments
Zien Medical	\$850,000	\$ Not Disclosed	5	2	2	
Knudra	\$340,000	\$ Not Disclosed	3	1	5	Recently received NSF grant
MesaGen	\$30,000	-	3	0	1	Self-funded, new to incubator
Simplicity MD	\$11,000*	-	6 Part-time	1	1	Grow America award recipient working with intern at BiG
BloXR	\$11,000,000	\$ Not Disclosed	10+	15	2	Graduated, but keeping small space at BiG
Turner Labs	\$10,000	-	-	-	-	Moved Out of BiG
Symbion Discovery	\$617,000	-	3	-	2	Moved Out of BiG
BiG CRO	-	-	1	1	4	Natural Products analytical support
Totals	\$12,847,000	> \$500K	25	19	16	

* Not included in summary statistics

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FY13 and FY14 Budget Overview: 6 year trend details



See Packets for Details:

USTAR Budget Request for FY2013 and FY2014										Last updated: October 12, 2012
	FY 2007 Actual	FY 2008 Actual	FY 2009 Actual	FY 2010 Actual	FY 2011 Actual	FY 2012 Actual	FY 2013 Budget	FY 2014 Base Budget	FY 2014 Building Block Requests	
Sources of Funding:										
General Fund-Ongoing	19,250,000	19,324,500	16,397,800	15,296,100	14,501,300	13,952,700	16,990,300	16,990,300	9,000,000	Note 1
General Fund-One-Time			(1,947,700)	(5,072,900)		540,500	3,000,000			
Federal Fund (\$33,000,000 in total)	-	-		15,884,351	17,115,649	-	-			
SBR Fees	-	-	6,315	9,600	4,750	3,107	5,000			
Prior Year Carryforward ("Beginning Nonlapsing")	-	9,286,195	11,269,702	12,164,984	16,744,869	21,701,989	10,923,725	0		
Total Funds Available	19,250,000	28,610,695	25,726,117	38,282,135	48,366,568	36,198,296	30,919,025	16,990,300	9,000,000	
Uses of Funding:										
Outreach and Administration	672,157	3,056,114	3,507,632	2,633,637	2,530,734	2,509,762	2,726,400	1,995,300	340,000	
Technology Commercialization Grants	-	-	-	674,103	2,463,808	401,569	300,000	-	260,000	
University of Utah Research Team	128,047	8,819,190	11,992,964	12,159,312	12,730,038	14,192,640	15,422,886	8,997,000	TBD	Note 2
Utah State University Research Team	2,136,552	4,651,186	5,619,733	6,352,571	8,939,999	8,170,600	12,469,739	5,998,000	TBD	Note 3
U of U and USU Advance Payments	7,027,049	814,503	(7,559,196)	(282,357)	-	-	-	-	-	
Total Expenses	9,963,805	17,340,993	13,561,133	21,537,266	26,664,579	25,274,571	30,919,025	16,990,300	9,000,000	
Carryforward Remaining ("Closing Nonlapsing")	9,286,195	11,269,702	12,164,984	16,744,869	21,701,989	10,923,725	0	0	0	
Note 1: FY'14 Additional requests show difference between on-going funding and amount currently needed to run research program Note 2: FY'14 UofU Forecast has been submitted to USTAR; Final base budget will be based on 60% of budget remaining after allocating \$1.995M to TOIP Note 3: FY'14 USU Forecast has been submitted to USTAR; Final base budget will be based on 60% of budget remaining after allocating \$1.995M to TOIP										