

Ohio

Third Frontier

Innovation Creating Opportunity

Commission Meeting

June 12, 2013

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Technology Validation and Start-Up Fund

Purpose

- Create economic growth in Ohio based on start-up companies that commercialize technologies developed by Ohio institutions of higher education and other Ohio not-for-profit research institutions
- Designed to support:
 - technologies developed at eligible Ohio research institutions that need to be validated/proven and will have the ability to support a start-up company
 - Ohio start-up and young companies that license these validated/proven technologies from Ohio institutions

Program Basics

- ***Lead Applicants:***

Phase 1 – Ohio higher education institutions or other Ohio not-for-profit research institutions with selection by the institution's Technology Transfer Office. Awards of up to \$50,000.

Phase 2 – Ohio start-ups and young, emerging Ohio companies that will execute an exclusive license with one of these institutions. Awards of up to \$100,000.

- ***Funding:*** \$6 million

- ***External Evaluator:*** YourEncore



Innovative Results through Proven Expertise

Technology Validation and Start Up Fund-Round 4

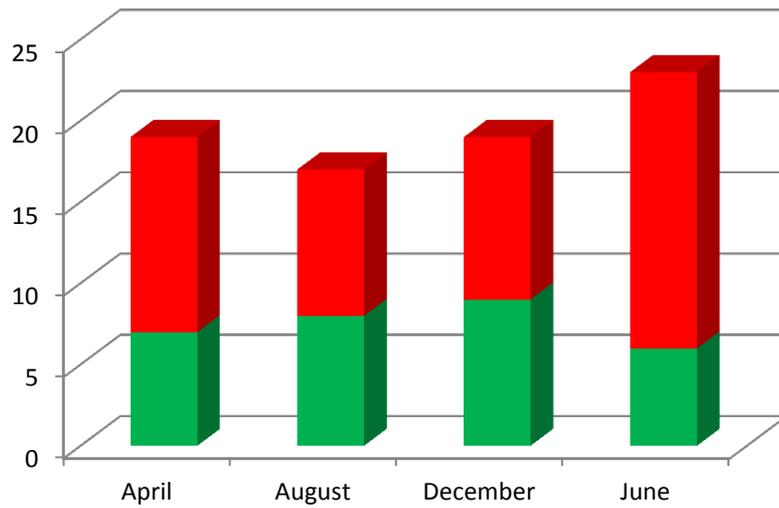
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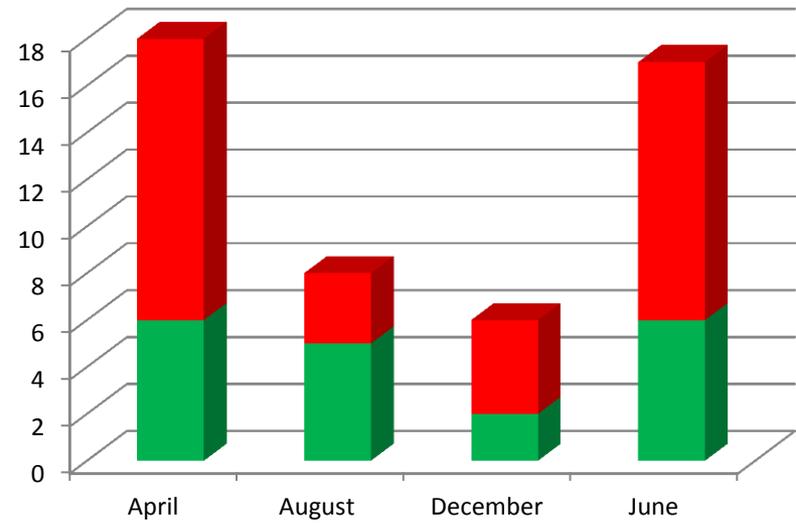
Overview

- Total grant dollars recommended increased to \$863,636 vs. Round 3
 - *\$950,000 in Round 1, \$900,000 in Round 2, \$610,000 in Round 3*
 - *Round 4 increase driven by greater number of applications vs. Round 3*

Phase 1 Applications



Phase 2 Applications



Overview

- 30% of grants submitted this round recommended for approval (12 of 40)
 - *35% recommended in Round 1, 52% in Round 2, 44% in Round 3*
- Quality of proposal writing decreased from previous rounds, likely needing greater involvement from university TTO's
- Proposals continued to be strong technically
- Opportunity for improvements in business rationale
 - *Business Cases are in need of guidance and review prior to submission*
 - *Lacking clear understanding of potential market dynamics and size*
- Strongly encourage potential resubmissions to take advantage of the opportunity to debrief

Phase I

Summary of Recommendations

PROPOSAL #	Licensing Institution	PROJECT TITLE	Generation of Proof to be Licensed	Project Plan / Team	Independent 3rd Party Review	Reasonable Path to Mkt	IP Protection	Start-up in Ohio	Market Opportunity / Size	Budget Narrative / Use of Funds
13-0402	Kent State	<i>Easily Reconfigurable, High Resolution, Patterned Liquid Crystal Alignment Layers via Ink Jet printing</i>	Green	Yellow	Green	Green	Green	Green	Green	Yellow
13-0407	University of Toledo	<i>Nano-biosensor for Infection in Tissue</i>	Green	Yellow	Green	Green	Green	Yellow	Green	Yellow
13-0410	University of Toledo	<i>Non-toxic Antibacterial Surfactant/ Microgel Formulations</i>	Green	Green	Green	Yellow	Green	Yellow	Yellow	Yellow
13-0413	Case Western	<i>Image-Based Risk Score for Predicting Response to Therapy for ER & Breast Cancer Patients</i>	Green	Yellow	Green	Yellow	Green	Green	Green	Green
13-0416	Austen BioInnovation Institute	<i>Ultra Low Volume Syringe/Pipette</i>	Green	Green	Yellow	Green	Green	Green	Green	Green
13-0420	Kent State	<i>Fast Electrooptic Switches Based on Liquid Crystals</i>	Green	Green	Green	Yellow	Yellow	Green	Yellow	Yellow
13-0401	Ohio University	<i>A Matlab Toolkit for 3D Visualization of Real and Synthetic Flight Data</i>	Yellow	Green	Green	Green	Green	Yellow	Red	Green
13-0403	Kent State	<i>Smart Energy Saving Liquid Crystal Window</i>	Red	Yellow	Red	Red	Green	Yellow	Green	Yellow
13-0404	Ohio State	<i>VisonLight</i>	Yellow	Red	Yellow	Yellow	Red	Green	Yellow	Green
13-0405	Ohio State	<i>Inorganic Membranes for Freshwater Recovery</i>	Red	Yellow	Green	Red	Green	Green	Red	Green

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13-0406	Ohio State	Personalized Spine Assessment	Red	Yellow	Red	Yellow	Red	Green	Green	Green
13-0408	University of Toledo	Bio-polyamides precursors for production of Nylon 11	Red	Yellow	Green	Green	Green	Red	Green	Green
13-0409	University of Toledo	Nanoelectronic Memristor Device	Yellow	Yellow	Green	Red	Green	Yellow	Red	Yellow
13-0411	University of Toledo	Injectgraft	Red	Green	Green	Yellow	Yellow	Green	Yellow	Yellow
13-0412	Ohio State	Total Animal	Red	Green	Green	Green	Green	Green	Red	Red
13-0414	Cleveland Clinic	Reinforced Extracellular Matrix Device for Ventral Hernia Repair	Red	Red	Green	Yellow	Yellow	Green	Green	Yellow
13-0415	University of Akron	Low-Cost Integrated Wireless Sensor Network for Agriculture Hydroponic Systems	Red	Green	Red	Red	Green	Green	Red	Yellow
13-0417	Austen BioInnovation Institute	Self-Retaining Radiolucent Femoral Retractor	Yellow	Green	Yellow	Green	Green	Red	Red	Green
13-0418	Austen BioInnovation Institute	Intubation Mouth Guard	Red	Green	Yellow	Yellow	Yellow	Red	Red	Green
13-0419	Austen BioInnovation Institute	Digital Wound Assessment	Red	Yellow	Red	Yellow	Yellow	Green	Red	Green
13-0421	Kent State	Novel Non-Photobleaching Fluorescent Magnetic Nanoparticles as Advanced Bioimaging Agents	Red	Yellow	Green	Green	Yellow	Green	Green	Green
13-0422	Kent State	High Speed Plasmonic Spatial Light Modulators with Low Driving Voltages	Red	Green	Yellow	Red	Red	Yellow	Green	Green
13-0423	Kent State	Smart Responsive Scaffolds for 3D/4D Cell Culture and Regenerative Medicine Applications	Red	Yellow	Red	Red	Yellow	Green	Yellow	Green

Phase 1 Proposals Recommended for Funding

- 13-402: Kent State University, Easily Configurable, High Resolution, Patterned Liquid Crystal Alignment Layers via Ink-jet Printing of Metal Nanoparticles and Semiconductor Quantum Dots, \$46,527
- 13-407: The University of Toledo, Nano-biosensor for Infection in Tissue, \$25,000
- 13-410: The University of Toledo, Non-toxic Antibacterial Surfactant/Microgel Formulations, \$44,493
- 13-413: Case Western Reserve University, Image-based Risk Score for Predicting Response to Therapy for ER+ Breast Cancer Patients, \$50,000
- 13-416: Austen BioInnovation Institute in Akron, Ultra Low Volume Syringe/Pipette, \$49,250
- 13-420: Kent State University, Fast Electrooptic Switches Based on Liquid Crystals, \$50,000

Phase II

Summary of Recommendations

PROPOSAL #	Licensing Institution	Lead Applicant	PROJECT TITLE	Proof to Raise Additional Funds	Project Plan (one year)	Likelihood of Additional Funds at project end	Team	Business Model	Company Backing	IP Protection	Opportunity /Mkt. Size	Budget / Use of Funds	Start-up in Ohio	License with Ohio Institution
13-0427	Nationwide Children's Hospital	Nanofiber Solutions	Development of a Tissue Engineered Small Intestine											
13-0429	Case Western Reserve	Folio Photonics LLC	Prototype Development of a Coextruded Multilayer Polymer Film for Optical Data Storage											
13-0433	University of Toledo	Lucintech Inc	Transparent PV Window Prototypes											
13-0434	The Austen BioInnovation Institute in Akron	Apto Orthopaedics	A Non-Invasively Adjustable Implant for Treatment of Early Onset Scoliosis											
13-0436	Ohio State	LARAD	Virus-Like-Particle (VLP) Vaccines											
13-0437	University of Toledo	Analytic Diabetic Systems	Beta Prototype Development of a Comprehensive Web-Based Clinical Decision Support System Supporting Optimization of Glycemic Control in the Hospital/Critical Care Setting											

Phase II

Summary of Recommendations

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13-0424	University of Dayton	ZaggerTag, LLC	ZaggerTag	Green	Green	Yellow	Green	Red	Red	Yellow	Yellow	Yellow	Green	Green
13-0426	Ohio State	Sensetronics, LLC	Commercialization of ImmunoFET Sensors	Red	Yellow	Green	Yellow	Green	Green	Green	Green	Red	Yellow	Green
13-0428	The Austen BioInnovation Institute in Akron/Summa Health Systems	GorMonjee Inc	GorMonjee The Decision Making Engine for Healthier Food Choices	Yellow	Yellow	Red	Yellow	Red	Green	Red	Red	Green	Green	Green
13-0430	Nationwide Children's Hospital	Abeona Therapeutics	Development of therapies for children with Sanfilippo disease	Green	Green	Green	Yellow	Red	Green	Yellow	Yellow	Red	Yellow	Green
13-0431	Ohio State	COPE2Thrive LLC	COPE Online	Green	Yellow	Yellow	Red	Red	Yellow	Red	Green	Yellow	Green	Green
13-0432	Ohio State	Simple-Fill LLC	Simple-Fill Natural Gas Compression	Green	Green	Green	Yellow	Red	Green	Green	Red	Red	Green	Green
13-0435	Ohio State	AEP CON	Electronic Bandages	Red	Green	Red	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green
13-0438	Ohio State	Dowell Vargas Solutions	MedReviews	Green	Green	Green	Green	Red	Yellow	Red	Red	Green	Green	Green
13-0439	Ohio State	Readiness Analytics	The Readiness Test	Red	Green	Yellow	Green	Red	Yellow	Green	Red	Green	Green	Green
13-0440	University of Toledo	IRISense LLC	IRISense LLC	Green	Green	Green	Yellow	Red	Green	Green	Yellow	Green	Green	Yellow

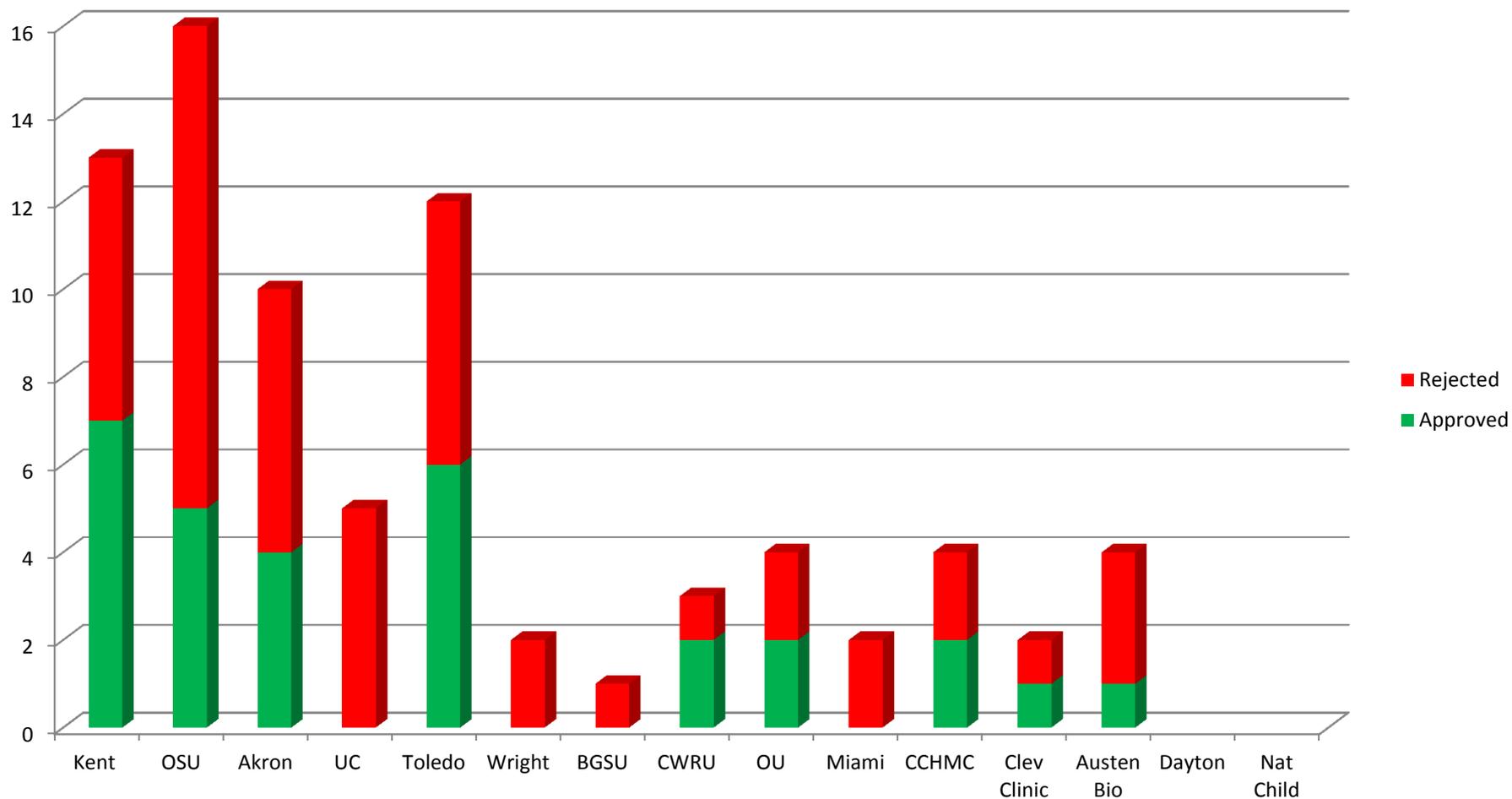
Phase 2 Recommendations for Funding

- 13-427: Nanofiber Solutions, Development of a Tissue Engineered Small Intestine, \$100,000
- 13-429: Folio Photonics, LLC, Prototype Development of a Coextruded Multilayer Polymer Film for Optical Data Storage, \$100,000
- 13-433: Lucintech Inc., Transparent PV Window Prototypes, \$100,000
- 13-434: Apto Orthopaedics, A Non-invasively Adjustable Implant for Treatment of Early Onset Scoliosis, \$100,000
- 13-436: LARAD, Inc., Virus-Like-Particle (VLP) Vaccines, \$100,000
- 13-437: Analytic Diabetic Systems, LLC, Beta Prototype Development of a Comprehensive Web-based Clinical Decision Support System (GlyCU) Supporting Optimization of Glycemic Control in the Hospital/Critical Care Setting, \$98,366

Combined Approved/Rejected by Institution

Phase 1 Cumulative Through 4 Rounds

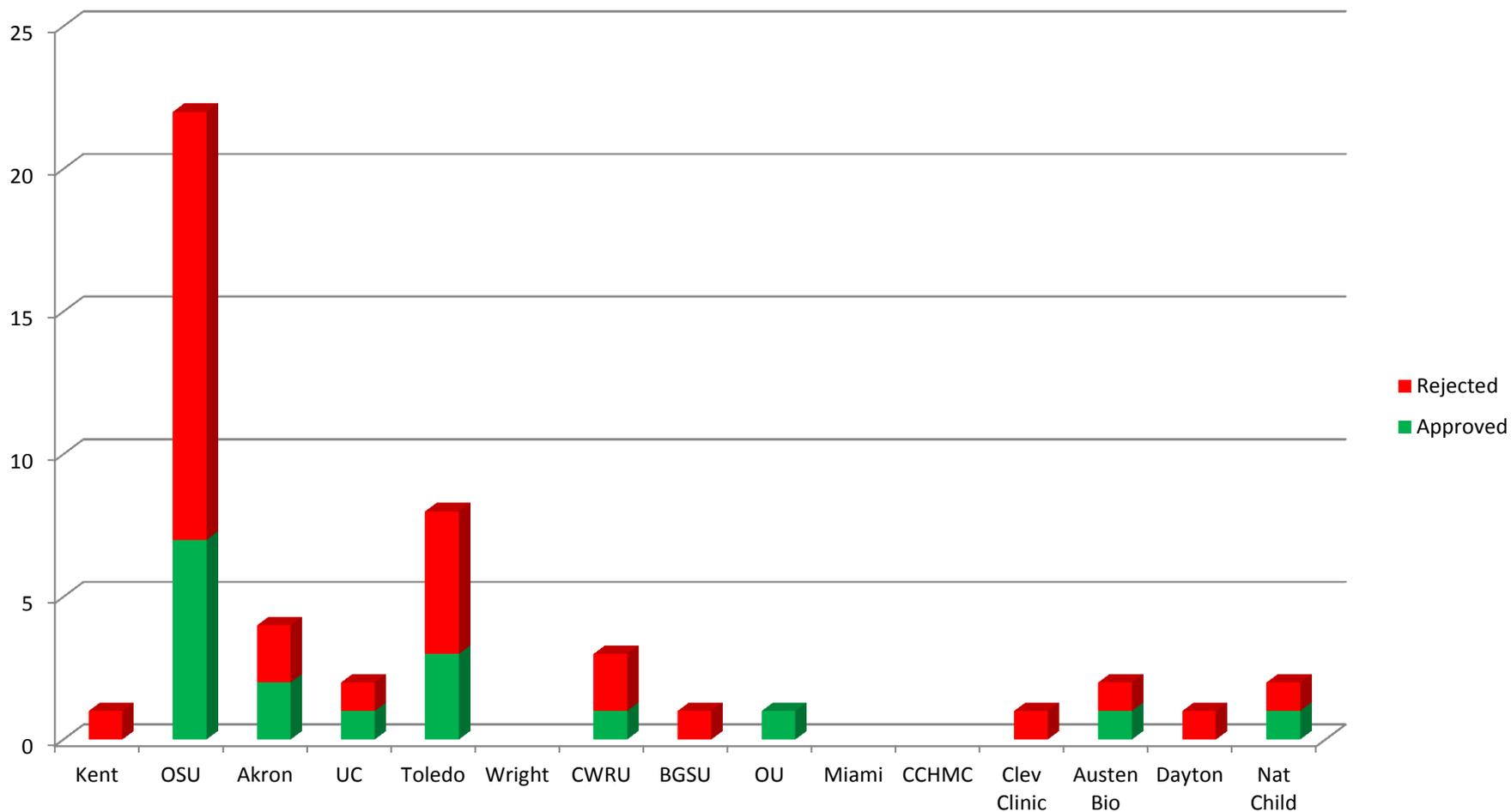
Phase 1 Approved/Rejected by Institution



Combined Approved/Rejected by Institution

Phase 2 Cumulative Through 4 Rounds

Phase 2 Approved/Rejected by Institution





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