

Board Meeting
April 18, 2018

**Board Meeting
Resodyn Corporation
Butte, MT
April 18, 2018**

Board Members

Attending: Jim Davison, Chair
Larry Farrar
Eric Fulton
David Opitz

Others

Attending: Dave Desch, Executive Director
Jane Todd, Program Specialist

I. Call to Order

Jim Davison called the meeting to order at 9:13 a.m.

II. Approve Board Minutes of March 7, 2018, Meeting

It was moved and seconded to approve the minutes of the March 7, 2018 Board meeting. All in favor and no one opposed, the minutes were approved as presented.

III. Review and Discussion of Proposals Submitted March 1, 2018

Jim Davison summarized the process used to review proposals. The proposals will be discussed and evaluated, and some applicants will likely be asked to make presentations at the meeting on May 16, 2018.

The Board discussed the following proposals and agreed to put them in a “Hold” category.

#19-07 Montana Craft Malt

Ron Ueland, Montana Craft Malt, Butte - \$140,000

#19-09 Novel Berkeleylactone Antibiotic for Multi-Drug Resistant Staphylococcus

Jay Evans, Inimmune Corporation, Missoula - \$128,726

#19-15 Vision Aerial STEDS Project (Severable Tethered Drone System)

Shane Beams, Vision Aerial, Bozeman - \$148,700

#19-17 Prototype Housing for rural School Districts

Ralph Johnson, Montana State University, Bozeman - \$9,677 – Year 1; \$54,074 – Year 2

#19-20 Applying Optimized Confocal Microscopy to the Quantification of Pore Network Heterogeneity in Tight Rock Reservoirs

Marc Hendrix, AIM GeoAnalytics, Missoula - \$73,638

#19-21 Urban Farming Feasibility on Asphalt Covered Land

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Andrew Coggins, National Center for Appropriate Technology, Butte - \$18,274 – Year 1;
\$15,991 – Year 2

#19-25 Transforming Discarded Vegetable Oils to Sustainable Lubricant Enhancer
Randy Maglinao, Montana State University Northern, Havre - \$74,473

#19-29 A Novel Portable Electrospinning Device for Functionalized Fiber Materials
Jack Skinner, Montana Tech, Butte - \$138,317

#19-31 Design of Edge-Defined Film-Fed Growth (EFG) Crystal Growth System for
Producing 12.2-inch and 18.5-inch Sapphire Panels for use on the Lockheed Martin F-35
Lightning Fighter Jet and for use in Transparent Armor Windows
Gregory Peterson, Aili Materials Inc, Bozeman - \$75,000

#19-32 Mining City Games
Matt Vincent, Mining City Games, Butte - \$24,000

#19-33 Repurposing EXP-1603 for use in Alzheimer's Disease and Cognitive Aging
Braxton Norwood, Expesicor, Kalispell - \$162,715

#19-34 Evaluating EXP-1602 in College Football Players: A Pilot Clinical Trial
Braxton Norwood, Expesicor, Kalispell - \$168,715

The Board then continued with a detailed review of the following proposals:

#19-01 Novel Methods for Mass Spectrometry Information Extraction and Reporting
Rob Smith, Prime Labs, Greenough, MT - \$89,997

The Board liked this project:

- Potential to be successful
- Funding intellectual infrastructure in the medical programming field

The Board expressed concerns:

- Budget line items – travel and F&A – consider decreasing budget by \$25,000 to \$64,700
- Commercialization plan could be stronger.
- How will Montana benefit?

The Board requested a presentation.

#19-02 Point of Care Monitor for Treatment of Substance Abuse
Richard Clarke, Yellowstone Scientific Instruments, Big Sky - \$50,000

The Board liked this project:

- NIH endorsement
- Drug that is proven marker tracer

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- Current market

The Board expressed no particular concerns.

#19-03 Forage Barley: An Economic Benefit for Montana
Jamie Sherman, Montana State University, Bozeman - \$46,500-Year 1; \$46,500-Year 2

The Board expressed no particular interest in the project.

The Board expressed concerns:

- Two-year project

#19-04 A Novel Non-Contract Respiratory & Cardio Monitor
Doug Roberts, Flat Earth Inc., Bozeman - \$96,000

The Board expressed no particular interest in the project.

The Board expressed concerns:

- Not clear on results from currently funded project, as project not yet completed

#19-05 Enhanced Power and Zoom (EPZ™)
Sarah Lukes, Agile Focus Designs, Bozeman - \$90,000

The Board liked the project:

- Young team that appears to have tools, background, experience
- Clever technology and approach to the research
- Medium risk and potential for commercialization
- Near term
- Building infrastructure base

The Board expressed concerns:

- Commercialization experience of team weak

The Board requested a presentation.

#19-06 Structural Stabilization of Freeze Tape Cast Microstructures
David Driscoll, Glacigen Materials, Inc., Bozeman - \$62,702

The Board liked the project:

- Novel process with significant potential
- Good technical NASA reviews
- Device on website currently on market
- Medium to low risk
- High commercialization potential
- Near term commercialization

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The Board expressed concerns:

- Commercialization plan could be stronger

#19-10 Automation of Farming of *Acheta domesticus* in Rural Communities for the Production of Food

James Rolin, Cowboy Cricket Farms LLC, Belgrade - \$38,213

The Board liked the project:

- Effort to automate new industry

The Board expressed concerns:

- MBRCT may not be the best source for funding
- Building up a facility, less of a research project than other applications

#19-11 Adaptive Spectral Filtering for Spatial Spectral Applications

Krishna Rupavatharam, Montana State University, Bozeman - \$84,000

The Board showed no particular interest in the project.

The Board expressed concerns:

- Summary review comments not convinced of commercialization value
- Looks like good research, but not sold on commercialization

#19-12 New Semi-Dwarf Alleles to Increase Wheat Yield and Value

Mike Giroux, Montana State University, Bozeman - \$73,830 – Year 1; \$76,045- Year 2

The Board showed no particular interest in the project.

The Board showed no particular concerns regarding the project.

#19-13 Anti-Wrinkle Creams with Collagen-Stimulating Small Molecules

Renee Reijo-Pera, Montana State University, Bozeman - \$162,500

The Board liked the project:

- Intellectual property in place
- Principal Investigator has required expertise, staff and connections

The Board expressed concerns:

- Amount of funding request is high

#19-14 Development of a Selective TAM-Kinase Inhibitor for Colorectal Cancer

Gary Flynn, Vibliome Therapeutics, Inc, Bozeman - \$95,004

The Board liked the project:

- Reasonable budget
- MSU connection

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- Strong peer reviews
- Compelling research

The Board expressed concerns:

- Early stage and long commercialization time frame
- Economic effect for Montana not clear
- Underdeveloped plan

#19-16 Cellular Bone Matrix

Helena Lovick, Xtant Medical, Belgrade - \$147,649 – Year 1; \$59,760 – Year 2

The Board liked the project:

- Strong commercialization potential
- Established company, facility, expertise and track record

The Board expressed concerns:

- Significant funding request over two years
- Project objective not defined

#19-18 An FPGA Smart Camera for Optical Sensing Systems

Ross Snider, Montana State University, Bozeman - \$56,321 – Year 1; \$56,321 – Year 2

The Board showed no particular interest in the project.

The Board expressed concerns:

- Research component unclear
- Similar product already exists

#19-19 Extended Range Absolute Distance Interferometer

Jason Brasseur, Bridger Photonics, Inc., Bozeman - \$79,985

The Board liked the project:

- Strong commercialization plan
- Specific objectives
- Current SBIR projects
- Strong peer reviews

The Board expressed concerns:

- Funded multiple previous projects

#19-22 Increased Stroke for MEMS-Based Deformable Membrane Mirror through
Material Investigations

Christopher Arrasmith, Revibro Optics, Bozeman - \$60,000

The Board liked the project:

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- NSF reviews speak well to technical merit
- Principal Investigator has good credentials
- Near term anticipated product launch
- Collaboration with MSU
- Prototype nicely packaged, competitive in market

The Board expressed concerns:

- Business case should be better described

#19-23 Development of Low-Power Economical Snowpack Sensors Using Snow Buried GPS Receivers

Paul Nugent, NWB Sensors, Inc, Bozeman - \$100,000

The Board liked the project:

- Unique technology
- Near-term time to market
- Good letters of support

The Board expressed no particular concerns.

#19-24 Topical Selective T-Type Blockers for the Treatment of Neuropathic Pain

Fanny Astruc-Diaz, DermaXon LLC, Missoula - \$99,326

The Board liked the project:

- Addresses significant current health issue
- NIH review
- On track to be successful
- High risk with potentially high reward
- Potential to develop neurological/pharmacological infrastructure at University of Montana

The Board expressed no particular concerns.

#19-26 Berkeley Pit Rare Earth Recovery Project

Gary Icopini, Montana Bureau of Mines & Geology (MT Tech), Butte - \$\$99,083 – Year 1; \$93,342- Year 2

The Board decided to discuss and evaluate the proposal following a presentation.

#19-27 WaterNAV: Water Numerical Assessment and Virtualization

Alex Philp, The Sustainability Lab, Missoula - \$164,000

The Board expressed no particular interest in the project.

The Board expressed concerns:

- Question whether generic software can be written to fit different ecosystems

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- Project plan lacks details

#19-28 The Development of COGfit, a Virtual Reality Cognitive Rehabilitation Program with Transcranial Direct Current Stimulation (TDCS) and Electroencephalogram (EEG) Monitoring
Eric Guzik, Virtual Mind, Missoula - \$67,200

The Board liked the project:

- Early stage industry

The Board expressed concerns:

- Proposal not compelling
- Proposal disjointed, buzzwords

#19-30 RightPSI HVOR Commercialization
John Milanovich, RightPSI Inc, Bozeman - \$125,000

The Board showed no particular interest in the project.

The Board expressed concerns:

- Similar products are already available
- Amount of funding request significant
- Value proposition unclear

IV. Public Comment

There was no public comment.

V. Next Meeting

The next meeting will be held in Butte on May 16th beginning at 10:00 a.m. to hear presentations requested by the Board.

VIII. Adjourn

It was moved and seconded to adjourn the meeting. The meeting adjourned at 1:20 p.m.

Respectfully submitted,

Jim Davison, Chairman