



# **FIRST FLIGHT VENTURE CENTER**

**2017 Annual Impact Report**

**HIGH SCIENCE. HIGH IMPACT.**



Dear Fellow Innovators:

We are happy to share the 2017 First Flight Venture Center Annual Impact Report. While 2017 may be a fading memory, it is worth reporting on an exciting year of dynamic growth and discovery for our organization and high-science high-impact clients!

First Flight is the ONLY resource in North Carolina and surrounding states that provides a turnkey approach to early-stage company growth for science-based startups. We are proud to provide affordable space, flexible infrastructure, mentoring, as well as business and technology support services.

Below are highlights of 2017 accomplishments and ways our one-of-a-kind science-based incubator supports start-up innovators:

- Hanger6 now open for members! Our new advanced prototyping facility opened with a start-up BANG. University spin-offs, medical device inventors, corporate entities, industrial design houses and others will benefit from a unique setting to design, build and model product prototypes. And most importantly, an economical place to perfect designs and create prototypes.
- LiftOff program soars! Not only did we quadruple the number of companies who participated in the LiftOff grant program, the amount of non-dilutive funding received increased from \$1.3M in 2016 to \$10.2M in 2017!
- WINGS pilot program successfully launched! Four STEM interns from NCCU were placed with companies at First Flight for the summer of 2017. One student was offered a full time contract at the end of the summer!
- Thriving Occupancy: For more than three consecutive years, First Flight has 90% occupancy...we're helping a lot of science-based companies!
- Resource for the community: First Flight has opened its doors to invite science-related investor groups and non-profits to utilize our diverse meeting spaces to further bolster the innovation community

We are not alone in our endeavors and are deeply grateful to the funders and partners who help sustain our mission "to support the development and growth of high-science, high-impact entrepreneurial companies by providing tailored resources, guidance, connections and support required for their commercial success."

Here's to the belief that entrepreneurs deserve a place like First Flight to manifest their dreams and ideas to better humanity through their individual businesses. We encourage and invite anyone to invest in ensuring that a place like First Flight remains a resource in perpetuity!

Sincerely,

Andy Schwab  
President

Mary U. Musacchia  
Chair, Board of Directors

#### Our Values:

- Ethics
- Creativity
- Innovation
- Partnering
- Integrity
- Leadership

## The Board of Directors

- Larry Wilson, Treasurer
- Kenneth R. Tindall, Ph.D., Secretary
- Jean Davis, Board Member
- Peter Ginsberg, Board Member
- Fred D. Hutchinson, Board Member
- Cat Lineberry, Board Member
- Norris Tolson, Board Member



# First Flight Venture Center

catalyzes high-science, high-impact entrepreneurial company success

First Flight Venture Center (FFVC) as an incubator for high science high impact start-ups, holds a unique place and distinguishes itself from other incubators in many ways. While dedicated work-space and labs are important assets to science based companies during their quest for life-changing research, First Flight enables success by providing fundamental and critical support such as:

- Expert advice from seasoned entrepreneurs to build successful ventures, raise capital and increase fundability
- Introductions to potential venture capital and angel funders
- Access to grant experts to exponentially increase the chance for early-stage funding through the LiftOff program
- Flexible short term leasing arrangements for office/lab space tailored to start-up growth patterns
- Unprecedented culture and atmosphere of networking, collaboration and advice from Board/staff, funders, resource experts and fellow clients who make up the "FFVC family."

## IMPACT

**\$8B** ↑

Estimated Market Value for FFVC Client Graduates

**300** ↑

Hosted Over 300 Companies Since FFVC Inception

**44**

Patents Issued to Client Companies Since FFVC Inception

**\$70.5M**

Raised by Current Residents Since FFVC inception

*"First Flight Venture Center is a critical resource for broad science-based companies. As a First Flight resident during two start-up companies, I got so much more than a cost-effective workspace... it's the astute strategic advice from First Flight leadership, moral support from fellow innovators in the same boat and connections to potential investors. First Flight is a unique safety net on so many levels along the precarious journey of the spark of an idea to commercialization.*

Peyton Anderson



# FFVC Clients Solve Problems That Matter

First Flight fosters innovation and supports the growth of sustainable companies who impact the world with their work in:

- **Cancer prevention**
- **Cure for HIV**
- **Predictive plan genomics**
- **Advanced glaucoma treatment**
- **Novel additive manufacturing**
- **Human tissue engineering**
- **Restoring disabled functions**
- **Novel materials**
- **Solar energy storage**
- **Florescent dyes**
- **Next generation imaging**
- **Point-of-Care diagnostics**
- **RNA crop protection**
- **Big data aggregation and analytics**
- **Acoustoluidics**
- **Nano-delivery technologies**



*"There is simply no better place in the country for a life science company to make it to the marketplace, than at First Flight Venture Center."*

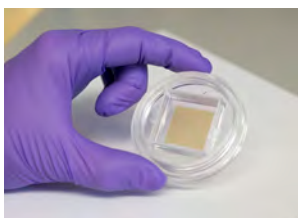
*Heidi Kay, Jericho Sciences*

## 2017 FFVC Client Accomplishments

**\$24M**      **150+**

**Total Capital Raised  
by Current Residents**

**Employees Employed  
by Current Residents**



*"FFVC has provided us with the flexibility to expand our facilities as the Company has grown. Both R&D activity as well as manufacturing of our commercial instruments and consumables are thriving under FFVC's model."*

*G.M. Pace, CEO, Cell Microsystems*

# LiftOff Program Raises Significant Funding in 2017



## FIRST FLIGHT LiftOff Program

The LiftOff program is a creative response to a start up's challenge to raise non-dilutive funding – grant funding that does not require them to lose a percentage of their business. In this first of its kind program, science-based entrepreneurial companies are vetted for their potential to impact society and present a value proposition likely to result in grant funding. Grant writing experts work with LiftOff companies from the start to finish of the grant writing and submission process at a subsidized cost.

Once a company is selected as viable for the program, a strategic plan is created, grant proposal opportunities prioritized and submitted. Grant awards yield a success fee that is re-invested in the LiftOff program, enabling other

companies to secure non-dilutive funds.

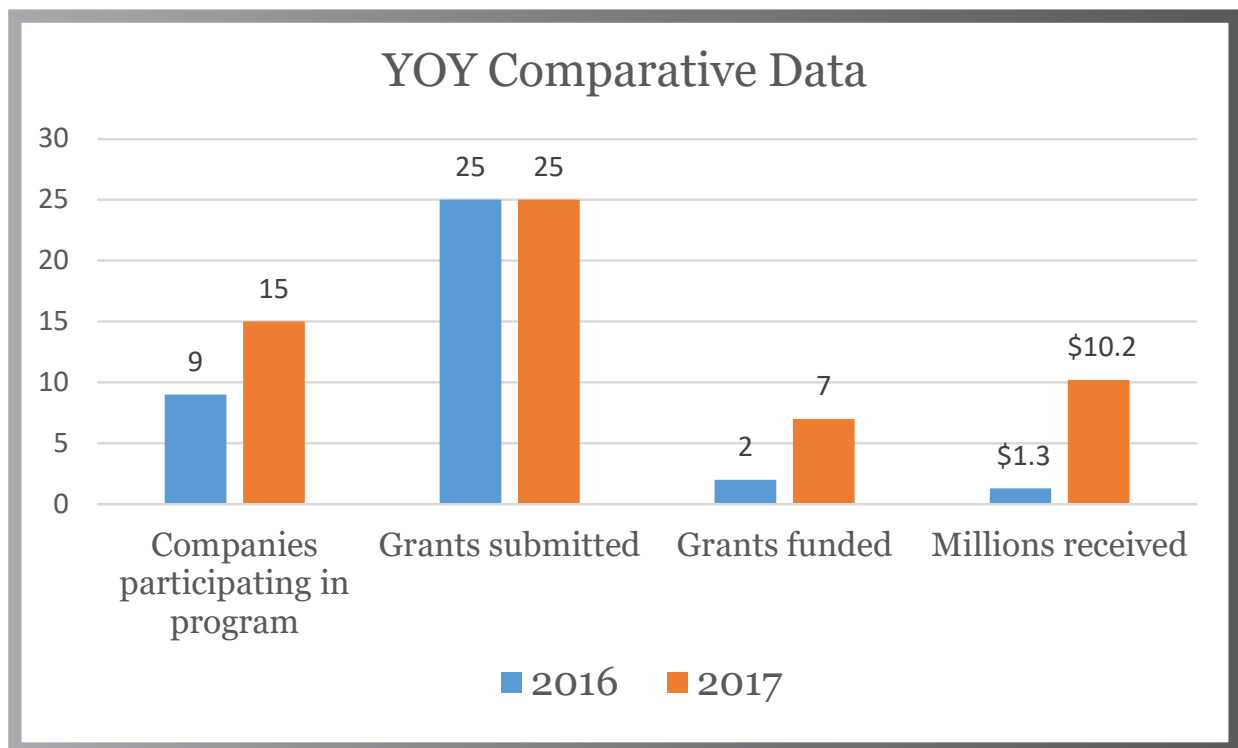
The LiftOff program is a pure play to assist start-up companies in their quest to raise significant funds and move towards sustainability.



*"The LiftOff program at First Flight is an innovative and effective way of combining research scientists with grants management professionals to significantly improve the quality of competitive grant submissions. Our company has raised over \$4 MM from the NIH through the LiftOff program. Access to the expertise offered through this program not only improved our award success rate but also exposed us to new funding mechanisms and opportunities."*

*Ed Burgard, PhD., President and Co-Founder  
Dignify Therapeutics, LLC*

## Increase Capital and Fundability to Position Companies for Further Investment



# 2017 Launch of One-of-a-Kind Advanced Prototyping Facility



A FIRST FLIGHT PROGRAM

Hangar6 is our newest innovation - a unique facility offering advance prototyping and design assistance space for science-based companies, entrepreneurs and start-ups. Hangar6 enables companies to design build and model product prototypes with advanced equipment and tools

including:

- 3D large format scanners and printers
- Fusion 400 FLA 3D printer
- CO2 laser
- Metal fiber laser
- CNC full scale production milling machines
- Welding shop
- Wood working shop
- And additional equipment

There is no other facility like Hangar6 on the east coast!



*"Having access to a facility like Hangar6 means we can solve problems in hours instead of days or weeks, and for a much lower cost than if we had to outsource everything."*

*Adam Steege, Trio Labs*





# Hangar6 Open for New Members!



Hangar6 is a subscription-based program based on monthly/yearly memberships. Members are afforded a comfortable work-space with access to state of the art equipment and design expertise. Corporate sponsorships with varying levels and access are available.

FFVC is pleased to offer this advanced prototyping facility to the entrepreneurial community to:

- Access to an extensive and diverse range of advanced prototyping equipment
- Build prototypes economically and on a flexible schedule
- Evolve designs in real time
- Utilize the design expertise of the skilled Hangar6 team
- Synergy of being with like-minded entrepreneurs

Additional information at [www.Hangarsix.org](http://www.Hangarsix.org)

“Hangar6 came through for my company in a pinch. Their dedication to providing the best service possible helped our team to optimize our prototype and meet our deadlines. Their reliable staff is always available to lend a helping hand and the breadth of services offered by their facility greatly increased our team's productivity by giving us the tools we needed.”

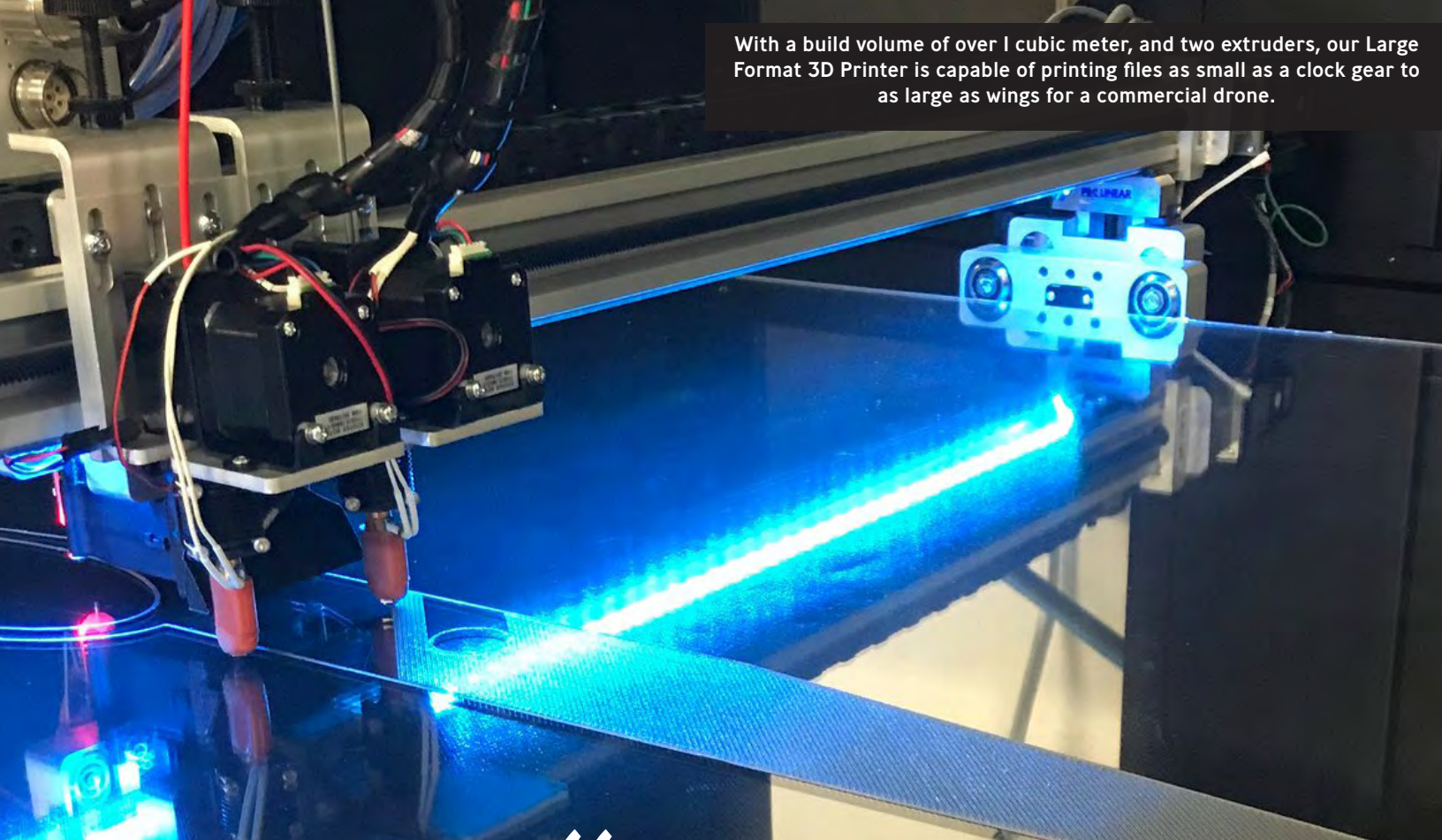
*Joshua Goff, Applied Life Sciences and Systems*

**Thank you to the donors whose amazing support makes Hangar6 possible:**

Alexandria Real Estate(ARE), the North Carolina Center of Innovation Network (COIN), Eva Gardner Consulting (EGC), the U.S. Department of Commerce EDA Challenge Grant.



With a build volume of over 1 cubic meter, and two extruders, our Large Format 3D Printer is capable of printing files as small as a clock gear to as large as wings for a commercial drone.



"Having the specialized prototyping equipment in Hangar6 allows me to experiment and create multiple prototypes while staying within a tight cash budget for exploratory ideas. I can spend \$50 at Home Depot on basic plastic materials and my time to make several versions of my idea to explore plausibility, including making changes as the pieces are being built. Those same test articles would have cost \$300 per piece using a commercialized prototyping space. This prototyping resource gives me a real advantage in the invention and innovation process."



Mark Roberson, CEO, Goldfinch Sensors



CNC milling can be the ideal solution for detailed prototypes or the temporary production of complex parts directly from 3D CAD files. CNC mills are also useful in the fabrication of unique, precise, components.

A CNC Mill can cut many materials and is capable of doing everything a regular milling machine could do, with the added benefits of computerized precision. CNC mills, when used in the right setting, can deliver speed, cost efficiency, increased safety, and efficiency.





Workplace Immersion for New Generation Scientists

## Connecting Youth to STEM Education and Careers

To expose a diverse range of students to STEM education and careers, First Flight created and implemented the Workplace Immersion for New Generation Scientists program. A Small Business Administration (SBA) Accelerator Award funded program, WINGS provides first-hand work experience for college students in cooperation with FFVC partners, North Carolina Central University and the North Carolina Center of Innovation Network (COIN). Student interests are matched with science-based company needs to give students real world workplace experience to see if the science field resonates.

## WINGS Program Intern Lands Permanent Job!

Interns like Keyandra Cotton work with FFVC start-ups to solve real world problems. This internship had an idea outcome for both the company and the intern. At the end of her internship, Keyandra was offered a job and will continue getting this valuable professional experience until she returns to school to obtain her Master's in Toxicology. Congratulations Keyandra!



# FFVC Navigators

The Navigator Program at FFVC leverages the talent and experience of seasoned entrepreneurs and executive level individuals. Executives in Residence [Navigators] help FFVC companies build successful ventures. Each company at First Flight is paired with a Navigator as a benefit of their resident status. Navigators serve as trusted advisors to FFVC resident companies in a voluntary capacity based on their expertise and desire to give back to entrepreneurial community.

Thank you, Navigators for the invaluable guidance and support to FFVC clients in 2017.



Esther M. Alegria,  
Ph.D



Bobby Bahram



Elaine D. Bolle



Allison London  
Brown



William Collins



Dean Gray



Dr. Tage Honoré



Thomas Laundon



Charlie Lineberry



Preston Linn



Mary Musacchia



Damon Race



Keith Ritter



Steve Warwick



Jim White



Mark Zorko





Photo by: Ken Lund

## Thank You Sponsors





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