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FIRST FLIGHT VENTURE CENTER

Since 1991, First Flight Venture Center[™] has supported the development and growth of high science, high impact entrepreneural companies by providing the tailored resources, guidance, connections, and support required for sustained commercial success.

Originally developed by the North Carolina Department of Commerce, First Flight was spun out as a non-profit, 501(c)(3) corporation and located in the Research Triangle Park (RTP).

OUR MISSION

To propel early-stage science companies through the delivery of comprehensive resources, and to empower innovators to transform good ideas into great successes.

OUR VISION

To be a global center of excellence empowering science innovators to impact positive change.

FFVC supports the development of innovative technologies and economic growth by providing early stage businesses with affordable laboratory and office space, management guidance and counseling, as well as shared business and technology support services.





MESSAGE FROM THE PRESIDENT

It is with great enthusiasm and gratitude that I reflect on the extraordinary journey we've embarked upon together at First Flight Venture Center. This past year has been a testament to the resilience, innovation, and collaborative spirit that defines our vibrant ecosystem.

In 2023, witnessed incredible growth and innovation within our ecosystem. Our resident companies who call First Flight Home and over 400 graduates produce over 14 Billion dollars in market capitalization, creating thousands of jobs and producing innovations that are truly changing the world for good. Additionally, First Flight has served over 2,506companies through programs outside the resident incubator companies, across our great state of North Carolina in the past three years. First Flight also hosted 12 international companies reaching for our Vision to be a global center of Excellence in 2023 alone.

First Flight's strength lies in the expertise of our ecosystem, and this year saw an even greater level of collaboration. Entrepreneurs, Navigators, and industry experts came together, sharing insights, knowledge, and resources. The sense of camaraderie and mutual support has been instrumental in propelling our mission forward.

We welcomed several honored guests this year including U.S. Congresswoman Deborah Ross, U.S. Congresswoman Valerie Foushee, U.S. Congressman Wiley Nickel, N.C. Representative Kanika Brown, and Garey Fox, Dean of College of Agriculture and Life Sciences at North Carolina State University.

Celebrating achievements with our ecosystem is one of the most rewarding aspects of our work.

All of us at First Flight Venture Center are incredibly honored to have received three InBIA, International Business Innovation Association Awards at the 2023 ICBI37 Conference in Detroit, MI.

Entrepreneurship Center of the Year Award for Technology/Science

Premiere Award - Dinah Adkins

Premiere Award - Randall M. Whaley

As we set our sights on the future, we are filled with anticipation for the opportunities that lie ahead. We are grateful for the precious gift of \$10M for a much-needed renovation and expansion, that our elected officials secured for us. We can not wait to be able to offer our entrepreneurs and startup more resources to further their work.

The momentum generated in 2023 serves as a solid foundation for continued growth and impact. Together, we will navigate new challenges, foster innovation, and elevate First Flight Venture Center to even greater heights.

Thank you to every member of our ecosystem for making 2023 an exceptional year. Your collaboration, dedication, and passion for supporting high science, high impact innovators, and entrepreneurs has been the driving force behind our collective success.



FIRST FLIGHT RECEIVES GIFT FROM NORTH CAROLINA

FIRST FLIGHT RENNOVATION COMING SOON!

\$10M



Our elected officials have recognized First Flight's impact on this great state of ours and understood the challenge of supporting new company start-ups in an old building and have given us the precious gift of \$10M for a much-needed renovation.

First Flight is still undergoing expansion plans to increase our service to startups in RTP with a new building as a phase 2!



MESSAGE FROM THE BOARD CHAIR

We have all heard the old adage 'change is inevitable'. To me this phrase has always had the feeling of acceptance, of being tired, rather than the energy of hope. At First Flight we believe Change should be embraced with excitement. CHANGE is not merely inevitable but is the bold future we want to create!

Our 2023 step into that future was to work with the NC Legislature to receive a grant of \$10 Million for our building infrastructure. That may sound like the past but in reality, it is a key step forward in our plans for the future.

As Socrates said, "The secret of change is to focus all of your energy not on fighting the old, but on building the new." We have spent too many hours and too much money fighting with this old and beloved building that has provided a home to well over 400 start-up companies.



This infrastructure money will allow us to fix many long-deferred maintenance projects (we are the second oldest building in the Research Triangle Park) so that we can truly focus ALL of our energy on building the new. My 2021 Impact Report Message referenced the most ambitious pillar in First Flight's long-range plan -- double our building space. We continue on course!

Our 2023 High Flyer Award Luncheon recognized the past and highlighted the future: Our two Champions of Innovation, former Governors Martin and Hunt changed the trajectory of innovation and entrepreneurship in NC and created opportunities for startups like our High Flyer company, Advanced Animal Diagnostics. The sold-out celebration at Preston Wood Country Club once again brought the NC entrepreneurial ecosystem to its feet as we toasted our Awardees.

Other 2023 highlights:the graduation of six resident companies, including NCX and DMC Bio followed by our welcoming new residents IngateyGen and Sable Fermentation and seven others.

Looking forward to CHANGE in 2024. My predictions: First Flight will see major improvements to our facility; our current programs will flourish; early-stage science companies will face funding headwinds but First Flight will be there to help; and First Flight's role with the AgTech Cluster will continue to grow. We welcome 2024 with open arms and ask YOU to share in our CHANGES!



OUR IMPACT

The numbers tell the story better than we ever could. First Flight is proud to say that since 1991, our companies have accumulated a market capitalization of \$14 billion, a truly remarkable number. Additionally, in 2023, First Flight companies filed over 28 patents, and raised over \$6,940,000 million in grants.

32+

YEARS

IN OPERATION SINCE 1991

\$14

BILLION

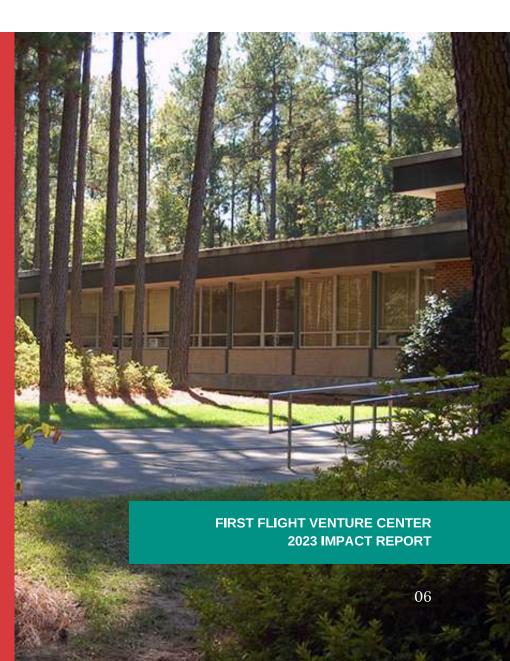
IN ECONOMIC IMPACT FROM RESIDENT COMPANIES

400+

RESIDENT INCUBATOR COMPANIES

533

VIRTUAL COMPANIES SERVED IN 2023



NEW IN 2023

FIRST FLIGHT SELECTED FOR THE SBA'S 2023/24 FAST AWARD FOR THE SIXTH CONSECUTIVE YEAR

First Flight, is honored to share the news of receiving a \$125,000 grant from the U.S. Small Business Administration's Federal and State Technology (FAST) Partnership Program. This marks our sixth consecutive year of recognition, placing us among a distinguished cohort of 44 organizations across the nation entrusted by the SBA with over \$5.4 million in total funding to advance the endeavors of science-driven entrepreneurs and startups. This grant underscores our commitment to nurturing the potential within our socially and economically disadvantaged communities, reflecting our deep gratitude for the opportunity to contribute positively to society through our supportive efforts.



FIRST FLIGHT VENTURE CENTER WINS THREE INBIA, INTERNATIONAL BUSINESS INNOVATION ASSOCIATION AWARDS.

Entrepreneurship Center of the Year Awards for Technology/Science

*

Premiere Award - Dinah Adkins (Plus \$500)

Premiere Award - Randall M. Whaley (Plus \$1,000)





WELCOME

January 2023 – First Flight welcomed Andrea Conner as the new Ecosystem Development Director.

"Andrea Conner's appointment as Ecosystem Development Director marks a pivotal moment for our organization. Her role is not just about fostering growth; it's about creating a thriving ecosystem where innovation, collaboration, and sustainability are at the forefront. Andrea's expertise and vision are instrumental in developing the future of our ecosystem, ensuring it remains resilient, dynamic, and inclusive."



Andrea Conner
Ecosystem Development
Director

October 2023 – We welcomed Ben Provan as the new Director of Hangar6, First Flight Venture Center's advanced prototyping facility dedicated to supporting entrepreneurs and startups.

"We believe that Ben Provan's leadership will elevate Hangar 6 to new heights, advancing our mission to catalyze innovation and drive positive change," said Krista Covey, President of First Flight Venture Center. "With his expertise, Hangar 6 will serve as a cornerstone for the prototyping community in North Carolina, fostering collaboration, innovation, and the creation of game-changing solutions."



Ben Provan
Director of Hangar6



- 30-40 Resident Companies
 Served At A Time
- 420+ Incubator Alumni
- 64 Spaces Total, 32 Labs and 32 Offices

First Flight Venture Center, through its business incubation program, plays a crucial role in supporting startups by offering essential services, networking, and mentorship. This comprehensive support helps startups overcome early challenges, leading to significant growth in revenue and employment, especially for entrepreneurs in disadvantaged communities.

This emphasis on incubation as a catalyst for startup success and economic growth is supported by findings from various sources, including the International Business Innovation Association, which highlights the role of incubators in producing successful firms. (www.InBIA.org)

Sustæra

Sustaera's mission is to change the world by passionately contributing to the achievement of net zero CO2 emissions by 2050 through developing and deploying modular Direct Air Capture technology that scales to a sustainable and profitable business.

Sustaera plans to remove 500 million tons (0.5Gt) of CO2 by 2040.



The Plant Pathways Company was founded on a simple premise: Utilize science, technologies and expertise to empower Agriculture, improve Wellbeing & Nutrition and protect the Planet. This also means improving the livelihood of farmers and agricultural communities.

There are multiple ways to improve a crop, such as increasing the concentration of desirable content or producing more of it in a smaller footprint to use fewer resources. Having the right team with the right skill sets allows them to build a capable, collaborative and nimble company to effectively meet customer needs and address the most pressing challenges facing humanity and the planet.



ProGro Bio is an American-owned-and-operated, Georgia-based, Ag-Tech microbial sciences company. Their team has vast experience and a successful track record in agricultural microbial research, management and operations. We are revolutionizing agribusiness with 100% all-natural solutions.

iSimcha Health

iSimcha is a technology company focused on health and research support applications for the patient, research and healthcare professional.

They create web enabled applications that provide research information about medical innovations to educate the community about the drug discovery arena

They provide the medical research community and pharmaceutical industry with technologies to assist recruitment of hard to reach populations into clinical trials

FIRST FLIGHT COMPANY SPOTLIGHT

"With our diagnostic offerings, we aim to empower real-time management decisions that increase productivity, prevent losses, improve animal welfare and protect our food supply."



Advanced Animal Diagnostics (AAD), located in the heart of North Carolina, is a pioneering Agtech company is at the forefront of transforming animal health and boldly breaking into the world of human health. Founded with a vision to enhance the well-being of livestock, AAD specializes in cutting-edge diagnostic solutions for the agricultural industry.

Their journey is a testament to innovation and a commitment to a sustainable future. AAD's mission is to empower livestock producers with accurate, real-time diagnostic tools that not only improve the health and productivity of their animals but also contribute to the efficiency and sustainability of the agriculture sector.

Because of their unique approach and capabilities, First Flight started engaging with AAD in 2018 regarding BARDA – specifically how they were planning to create an early detector for sepsis. After numerous discussions with BARDA, we couldn't see a path forward. And then the pandemic happened and all non-COVID funding seemed to dry up. However, this group was resilient. AAD reengaged with BARDA in April 2021 and received \$733,000 in September of that year. They went on to create what is now the fastest detector for sepsis anywhere.

As a North Carolina-based company, AAD is not only a beacon of innovation but also a source of pride.



JOY PARR DRACH:

As president & CEO of Advanced Animal Diagnostics, Joy Parr Drach brings a unique combination of agribusiness and new product introduction expertise. She is a serial entrepreneur who has successfully launched more than 30 new products or ag initiatives. She helped raise capital to turn the concept for AAD into a reality and built the team that has developed 10 products in 10 years. Joy understands the problems AAD's products can help solve from the perspective of a customer because she owns and manages a purebred cattle operation and is involved in a family grain farming enterprise. She serves on several boards promoting entrepreneurship and agriculture. She earned a BS in agricultural communications from the University of Illinois and an MBA from the University of Chicago.





OUR IMPACT

The numbers tell the story better than we ever could. First Flight is proud to say that since 1991, our companies have accumulated a market capitalization of \$14 billion, a truly remarkable number. Additionally, in 2023, First Flight companies held over 119 patents and raised over \$34,639145 grants since inception.

\$14

BILLION

Market Cap for First Flight Grads

INCUBATOR ALUMNI

in 33 years

\$323

MILLION

Investement Funds raised by equity since inception by 2024

\$34.6

MILLION

Grants Awarded to companies while at First Flight in 2023

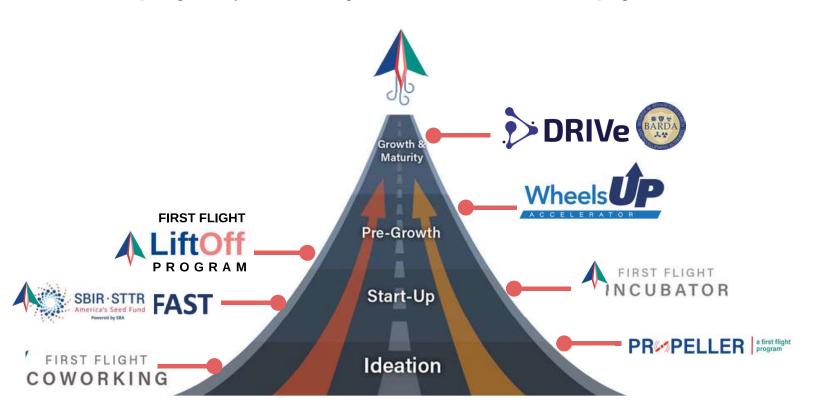
3,000+ 65,000+ Jobs created Worldwide thru Alumni

North Carolina Jobs currently



RUNWAY TO SUCCESS

At First Flight Venture Center, our programs are meticulously crafted to align with the diverse needs of entrepreneurs at any phase of their business journey. Recognizing the unique challenges and opportunities each stage presents, we offer targeted resources and support to ensure companies have the precise tools and guidance required for their current position and aspirations. From ideation to scale, our suite of programs embodies our commitment to nurturing innovation and fostering sustainable growth. This approach ensures that every entrepreneur, regardless of the lifecycle stage of their venture, finds a supportive environment to thrive within, paving the way for breakthroughs that drive economic and societal progress.



PROGRAMS BELOW OFFERED AT ALL STAGES













PROGRAMS SPOTLIGHT

2023 PROGRAM FAST FACTS

533

Companies Served Through
Virtual Programs

Doubled Navigators from

32 T0 64

in 2023

Approximately

500

Navigator Mentor Hours

FEDERAL AND STATE TECHNOLOGY (F.A.S.T.)

Our F.A.S.T. program focuses on:

- Raising awareness about how investors evaluate and select investments, providing insights to startups on what type of funding to seek, uses of various funding tools, and more.
- \bullet Expanding the depth of SBIR/STTR education programs and grant writing support offered.
- Offering business mentoring and coaching to strengthen the business value of the company.
- Raising awareness and increasing opportunities for Department of Defense (DoD) funding.
- Focusing on minority, women-owned, and economically disadvantaged companies in early ideation stages to help determine the business value of their idea, and help develop pitch decks for investors/customers/partners.

Attendees at 2023
F.A.S.T. Events
F.A.S.T. Bootcamp Demographics

2023 STATS

First Flight's North Carolina SBA F.A.S.T. Program

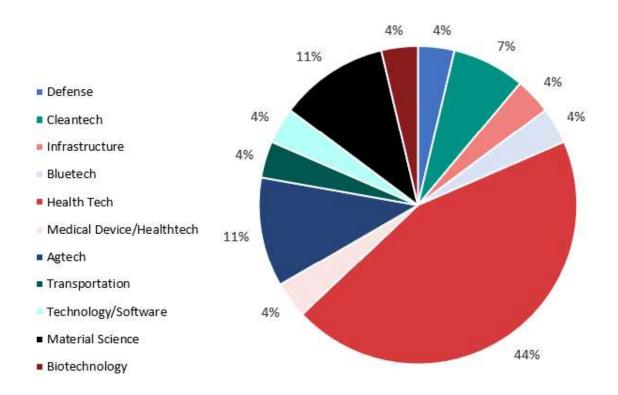
15 SBIR/STTR Applications Submitted

32 SBIR Awards

360+ Attendees at Events

Totaling \$1,343,959.00

F.A.S.T. BOOTCAMP TECHNOLOGY SECTORS







LiftOff

In 2023, First Flight and grant-writing partner Eva Garland Consulting, continued to meet a critical need of entrepreneurs with science focused companies to secure early-stage non-dilutive funding, and funding that does not require them to give away equity in their company. Startup companies, particularly companies who may need regulatory approval and years of clinical trials have a significantly longer "runway" to commercialization.

Early-stage companies with limited resources may not have inhouse technical writing capacity to obtain a Small Business Innovation Research (SBIR) or a Small Business Technology Transfer (STTR) grant. The LiftOff program fills that gap with subsidized professional grant writing services to not only create a strategic funding plan to map out their possible funding sources across federal agencies, but also to submit a high caliber grant submission which increases the chance to win an award.

\$250K

in funds, and in turn, the companies that went through Liftoff have raised over

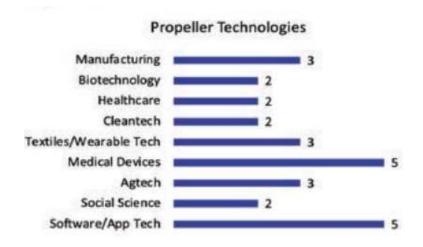
\$20.5M

FIRST FLIGHT'S RECENT TRACK RECORD OF DELIVERY TO SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS (SEDI)

FIRST FLIGHT PROGRAMS	Programs/ Sessions	Total Companies/ Participants	SEDI Companies/ Participants	Program Started	% SEDI Companies
Test Flight Pitch Practice	33	71	39	Aug 2021	54.9%
Itineraries "Science Talks"	36	34	20	Re-launched Sep 2020	55.6%
Propeller Accelerator	13 (6-week cohort)	84	68	Jan 2021	81%
WheelsUP Accelerator	1 (12-week cohort)	10	6	Aug 2022	60%



PROPELLER a first flight program



Propeller is an entrepreneurial design thinking program which helps entrepreneurs determine whether there is a sufficient value to pursue a product or service.

Propeller helps entrepreneurs identify potential markets, develop a path to market strategy, and learn how to communicate the value of the idea to early stakeholders and adopters.

Since the launch of the Propeller program in 2021, we have graduated 13 Propeller Early-Stage Accelerator cohorts. 68 of 84 graduates (81%) are from Socially and Economically Disadvantaged (SEDI) Founders (underrepresented communities).

In 2023, six cohorts with a total of 45 graduates went through Propeller (34 from SEDI participants). Cohorts were specifically dedicated to female founders, defense textiles and wearables, agtech, and three cohorts were dedicated to manufacturing.

45

PROPELLER

ACCELERATOR GRADUATES

NAVIGATORS

ADVISORS AND BUSINESS MENTORING

At First Flight we pair one of our experienced Navigators with a senior executive in your organization to serve as a trusted advisor. First Flight Navigators are seasoned executives, entrepreneurs, and scientists with rich business experience. They have worked hard, achieved success, and now want to give back to the entrepreneurial community.

64
NAVIGATORS

500
HOURS SERVED
IN 2023

ITINERARIES

Itineraries offers a chance for members of the First Flight community and broader innovation ecosystem to learn about the work of early-stage science-focused companies, network, and have some fun at the same time!







First Flight is honored to have been selected by the U.S. Department of Health and Human Services as one of 13 national innovation hubs tasked with finding solutions to protect the world from health security threats. This DRIVe initiative is part of BARDA and is designed to identify and fund companies who solve priority threats to health security.

FAST FACTS

Launched Wheels UP 12-week Accelerator to accelerate the pipeline for BARDA and BARDA Ventures in 2022

• 10 companies: 5 Advanced Biomanufacturing; 5 Drug Discovery Platform. 5 NC, 3 other US, 2 International

Facilitated ~\$10.4MM in Health Security Funding for Companies

Improve BARDA pipeline of technologies for earlier Technology Readiness Levels

- Designed 6-part Bench to BARDA Series & collaboratively implemented
- Working with BARDA & academic groups to create a transparent pipeline to BARDA

Increased collaboration with universities including Duke, UNC, NC State, Wake Forest

Relevant Events/Meetings

- Designed and collaboratively implemented 4-part BARDA Reverse Pitch Series (Sept/Oct 2021)
- BARDA Industry Day: K Covey panelist; E Runge served as SME in Lightning Talk discussions
- Medical, Biomedical, Biodefense Symposium An organizer of Infectious Disease panel (moderator K Covey) (Sept 2021) and Public-Private Partnerships (moderator K Covey) (June 2023)



36

Test Flight Pitch Practice
Participants

12 International 12 SEDI

TEST FLIGHT COMPANIES SERVED

Test Flight acts as pitch practice for companies in the First Flight ecosystem. On the first Tuesday of each month, we invite an audience to observe pitches from two companies. The audience includes our Navigators, angel investors, non-dilutive funding groups, customers, and other relevant reviewers to ensure the companies get meaningful, impactful feedback so their pitches continue to get better!

AUGUST 2023 TEST FLIGHT

William Carlisle, Chief Product Officer at LearnSesh, presented at First Flight's Test Flight.

LearnSesh uses virtual reality to create more-effective learning experiences that provide access to diverse resources, distraction-control, and perstudent accommodations. With limited resources, one-size-fits-enough lessons, and worsening student engagement - the US Education System is struggling. LearnSesh is the Extended Reality Education Platform providing an affordable and scalable solution.



CAPTAIN'S CIRCLE

First Flight's Captain's Circle brings together small groups of non-competing entrepreneurs for monthly private discussions with peers, led by a professional facilitator. Structured topics designed to solve problems and share best practices include finance, investments, employee relations, legal considerations, operations, scalability, marketing, and sales.

36

CUMULATIVE COMPANIES SERVED





HANGAR6'S MISSION

To support high-tech entrepreneurs and startups in getting their ideas off the ground through accessible design, engineering, and prototyping services.



We have an experienced team of mechanical and robotics engineers who can create integrated hardware that include mechanical, electrical, and controls components.

Grant Proposal Assistance

Hangar6, a key component of FFVC's offerings, significantly boosts your chances of securing grant funding. Through our SBIR 101 and FAST programs, we specialize in assisting entrepreneurs in obtaining non-dilutive grants. Additionally, collaborating with Hangar6 opens up further opportunities for funding in commercialization and prototyping. As a Technical and Business Assistance (TABA) provider, Hangar6 enhances proposals and facilitates access to free startup funding.



We have a myriad of advanced fabrication equipment, including digital manufacturing and metalworking tools, that enable us to create functional prototypes for clients.









2023 HIGH FLYER AWARDS LUNCHEON

First Flight celebrated 32 years at the forefront of scientific innovation in NC by hosting our 3nd annual awards luncheon to honor companies that have contributed to our community, scientific field, and entrepreneurship. This year we honored Joy Parr Drach and the Advanced Animal Diagnostics (AAD) team alongside North Carolina Governors James B. Hunt and James G. Martin as this year's First Flight High Flyers.









2023 HIGH FLYER AWARDS LUNCHEON

300+ Attendees

22 Exhibitors

500+ companies served across NC in 2023

SAVE THE DATE

2024 HIGH FLYERS AWARDS LUNCHEON

NOVEMBER 1, 2024



CHAMPIONS OF INNOVATION

THE WRIGHT SOCIETY \$100,000 AND BEYOND

- Windlift
- BARDA BioMedical Advanced Research Development Authority
- U.S. Economic Development Administration Regional Innovation Strategies
- U.S. Small Business Administration

CAPTAIN'S CIRCLE

\$25,000 - 99,999

- NC Defense Manufacturing Community Support Program
- NC Manufacturing Extension Program
- NC Dept. Commerce Board of Science, Technology and Innovation

AVIATOR'S CLUB

\$10,000 - 24,999

- Financial Directions Group, Inc.
- Hutchison PLLC
- City of Raleigh
- KYMANOX
- Delta Airlines
- Wells Fargo

CO-PILOT'S OF EXCELLENCE

\$1,000 - 9,999

- JP Morgan Chase
- RTP Foundation
- Barnes & Thornburg LLP
- Gerresheimer Glass
- · Pappas Capital
- · Mary U. Musacchia
- · Pacific Western Bank
- Deloitte
- NC IDEA
- · Jean Davis
- NC Life Sciences Organization
- TechOpp, Inc.

- Baebies, Inc.
- United Therapeutics
- Smith Anderson Law
- East Carolina University
- Forvis, LLP
- Advanced Animal Diagnostics
- ProGro Bio Inc.
- North Carolina Biotechnology Center
- Wyrick Robbins
- Mary Beth Thomas
- Paula Henderson
- O'Brien Atkins Associates
- Cat and Charlie Lineberry Triangle Community Foundation
- Fred & Nancy Hutchison
- Alexandria Launch Labs
- FFVC Board of Directors
- RTP Angels
- ClinLabs Staffing

THE FLIGHT CREW

UNDER \$1,000

- Davis Moore
- Lee & Associates
- SpanSet, Inc.
- JWM Consulting, LLC
- Tri Properties
- Bond Brothers Beer Company
- Dan O'Korne
- Ken Tindall
- Lebone Moses
- · James Nicholas
- Jennifer Brearley
- Sam Fox
- Joe Spratt
- Varun Nalam
- Wil McGuire
- Applied Research Transformation





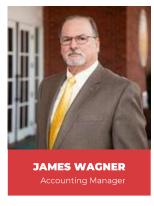




















HE FIRST FLIGHT BOARD OF DIRECTORS

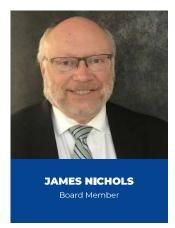














DAN O'KORN

MARY BETH THOMAS, PH.D

"Thank you" First Flight **Board of Directors for** your unwavering support in 2023