Innovation

- Innovation Engine (Carolinas Healthcare, now Atrium) - an overall guide to innovation:
  https://www.carolinashealthcare.org/about-us/innovation-engine

- Stanford Center for Biodesign - Learning materials to understand more about health technology innovation. Resources include textbook and video materials, biodesign case studies, published, peer-reviewed research articles authored by Stanford Biodesign faculty, fellows, students, and staff on topics related to health technology innovation, and video and audio recordings from two annual speaker series hosted by Stanford Biodesign:
  http://biodesign.stanford.edu/resources/learning.html

- Healthcare Innovator’s Roadmap - First in an on-going series of Innovator’s Roadmap posts from Boston Children’s Hospital’s Innovation & Digital Health Accelerator (IDHA). Matt Murphy is Innovation Lead at IDHA.
  https://vector.childrenshospital.org/2017/01/innovators-roadmap-developing-business-model/
PAs and Innovation Resources

- **VentureWell** – “We envision a world in which science and technology innovators have the support, training, and access to networks and resources they need to solve the world’s most difficult problems.” Works directly with a variety of early-stage innovators to help bring their ideas to market through workshops and training, coaching and mentoring, funding and awards. Visit [https://venturewell.org/resources/](https://venturewell.org/resources/) for instructional videos and documents pertaining to different aspects of innovation and entrepreneurship.

Entrepreneur and Start-up Resources

- **North Carolina Biotechnology Center** - Structure, fund, and grow your business with the resources provided (e.g., business incorporation and planning, funding sources, engaging investors, entrepreneur networks and support organizations, intellectual property, regulatory). [https://www.ncbiotech.org/resources/entrepreneur-resources](https://www.ncbiotech.org/resources/entrepreneur-resources)

- **Center for Entrepreneurial Development Mentor Service** – The Council for Entrepreneurial Development (CED) connects entrepreneurial companies with high-value resources to accelerate business growth. CED services and programs (including Connections to Capital, Venture Mentoring, and signature conferences) empower member companies to go further faster. The CED Venture Mentoring Service pairs entrepreneurial companies with a team of 3-4 mentors to help with major business challenges: making key hires, finding new customers, developing channel partners, seeking licensing deals, perfecting pricing models, deciding when and how to fundraise, and more. [https://cednc.org/resources/venture-mentoring-service](https://cednc.org/resources/venture-mentoring-service)

- **Small Business and Technology Development Center (SBTDC)** - a business advisory resource for entrepreneurs and growing and developing businesses. SBTDC helps businesses address a broad spectrum of issues including: planning, financial management and funding, human resources, marketing, and operations. SBTDC’s website, [www.sbtdc.org](http://www.sbtdc.org), provides a wealth of resources, including: training videos; a business start-up guide with an entrepreneur assessment; a guide to funding opportunities; and other resources valuable to prospective entrepreneurs including business planning, marketing, legal and human resources.

- **Western Carolina University - Rapid Center** - The College of Engineering and Technology partners with businesses, industry and entrepreneurs to develop new products and processes through The Rapid Center, Western Carolina University’s research and development center on the Cullowhee campus. The facility offers resources including high-tech engineering labs and equipment as well as accomplished faculty members with decades of combined experience in R&D. The RC is an incredible resource not only to established companies but
also to inventors and entrepreneurs who need assistance moving from concept to production. The RC has worked with individuals and small businesses to turn designs into tangible products and to outline effective plans for mass production. The RC frequently partners with WCU's Corporation for Entrepreneurship and Innovation (CEI), housed in Western Carolina's College of Business, to provide comprehensive assistance to start-ups. Working with both students and faculty, the CEI provides business and marketing planning, application design, and support identifying and securing capital.

https://www.wcu.edu/learn/departments-schools-colleges/cet/rapid-center/
https://www.wcucei.com/

- **Hangar 6** – a program offered by First Flight Venture Center, is the Research Triangle region’s premier prototyping and design assistance space for technology-based companies. Hangar6 enables designing, building and modeling product prototypes using tools, such as 3D scanners, CO2 lasers, metal fiber lasers, CNC mill, 3D printers and more. Hangar6 offers a local prototyping space for entrepreneurs to build prototypes on their own schedule. A scheduling tool is available to find the equipment, evolve designs in real-time, and tap into the expertise of the Hangar 6 skilled team for machine training and design help. Hangar6 is a subscription-based program, with options to meet small or large company needs. Options include monthly and yearly memberships and sponsorships with multiple memberships and more for larger enterprises. http://www.hangarsix.org/en

- **Ventureprise** - Ventureprise is UNC Charlotte’s innovation and entrepreneurship center serving the campus and Charlotte region as a center of excellence for evidence-based entrepreneurship. http://ventureprise.org/

- **Charlotte Research Institute** - The Charlotte Research Institute (CRI) is the gateway for business-government-university partnerships at UNC Charlotte - North Carolina’s urban research university. Our goal is to enhance the research and technology infrastructure and stimulate economic development within the region and state. We are purposefully organized to fuel innovation through collaboration between UNC Charlotte’s exceptional academic talent, industry, entrepreneurs, and government agencies. https://cri.uncc.edu/

- **National Science Foundation Innovation-corp (I-corp) program** – I-corp embraces the formation of ideas, innovation and commercialization of inventions by using proven methods in lean launch, customer discovery and business model innovation. Seed grants of up to $3,000 per team to help fund customer discovery. Some programs may also allow a portion of funds to be
PAs and Innovation Resources

used for prototype development activities. There are 4 such programs in North Carolina:

1. East Carolina University – open to the public, does not require you to be affiliated with or for your technology to originate from ECU.  
   https://icorps.ecu.edu/
2. NC State University - open to the public, does not require you to be affiliated with or for your technology to originate from NCSU.
   https://research.ncsu.edu/commercialization/icorps/
3. UNC Greensboro/NCAT joint program - students, faculty and alumni of UNCG and NCAT would be eligible to receive up to $5000 in mini grant funding to explore if their idea or innovation has the potential to become a scalable business. https://icorps.uncg.edu/
4. UNC-Chapel Hill - faculty and students at UNC Chapel Hill and surrounding campuses may apply.
   https://research.uncc.edu/departments/ventureprise

- **NC State University Entrepreneurship Clinic** - Students form diverse teams, based on the best mix of strengths, and act as consultants to partner companies. Partner companies, from early stage startups to scaling businesses, are encouraged to apply to the Clinic with specific business issues and needs. Student teams meet with company applicants, evaluate their weaknesses, and develop and execute a strategic action plan to help them solve a specific business need. This can include work such as market assessments.  
  https://entrepreneurshipclinic.ncsu.edu/work-with-us/

- **Duke Start-Up Ventures Clinic** - provides legal advice and assistance to entrepreneurs, and to seed and early stage entrepreneurial ventures that have not yet raised significant amounts of outside capital. The clinic assists these clients in a wide variety of legal matters including company formation, intellectual property protection, commercialization strategies and operational issues.  
  https://law.duke.edu/startupventures/

**Innovation/Entrepreneurship Centers**

- UNC System - Carolina Kickstart and Office of Technology Transfer  
  https://otc.unc.edu/startups/
- Duke University/Medical System Innovation and Entrepreneurship  
  https://entrepreneurship.duke.edu/
- Wake Forest University/Baptist Hospital System  
  https://www.wakeforestinnovations.com/
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- Duke MedX - A collaboration between Duke’s engineering and medical schools  
  http://medx.duke.edu/

- Atrium Health Innovation Engine 
  https://atriumhealth.org/about-us/innovation-engine

- East Carolina University Office of Innovation and New Ventures 
  https://rede.ecu.edu/innovation/

Programs

- **E(I) Lab Program** - The Carolina E(I) Lab is a six-month, free, extracurricular, experiential program designed to expose graduate students, professional students and postdocs across UNC to the entire lifecycle of innovating a product with the proper product-market fit. The program is open to Physician Assistants practicing in the UNC Healthcare system. 
  http://eilab.unc.edu/

Funding

- **NCIDEA** - Through a strategic combination of grants and programs, NCIDEA supports entrepreneurs and a diverse group of organizations throughout the state that are also helping entrepreneurs succeed. Grant programs include:
  1. NC IDEA LABS - an intensive program for founders developing an idea or product that needs validation through customer discovery
  2. NC IDEA MICRO awards small, project-based grants to young companies looking to validate and advance their idea
  3. NC IDEA SEED offers early stage companies the critical funding they need to scale faster. https://ncidea.org/grants-programs/

- **NC Biotechnology Center Flash Grant program** – NCBiotech’s Flash Grant program supports short, tightly focused research projects in two categories:
  1. To obtain crucial proof-of-concept or feasibility testing data necessary to suggest the disruptive potential of a life science technology, and/or
  2. To conduct the final experiment(s) needed to advance a basic life science research program into the translational research phase of development.

Up to $24,000 may be requested. Clinicians may apply with a researcher at a North Carolina-based university or nonprofit research institute. Several NC universities have biomedical engineering programs where a researcher can be tapped. This grant funding applied to technology that is still pre-company formation. https://www.ncbiotech.org/flash-grant
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- **NC Biotechnology Center Emerging Company Investment Program** – Consists of two programs that fund NC-based life science companies. Companies are invited to apply based on whether they meet eligibility criteria and targeted areas of interest. Programs include:

  1. **Small Business Research Loan (SRL)** - Supports business inception and research critical to the development of products, processes or tools with clear commercial potential. Award range: $75,000 to $250,000, and
  2. **Strategic Growth Loan (SGL)** - Matches Biotechnology Center investment with company driven angel or venture capital investments to fund life science companies that have established technical proof-of-concept and require further support to accelerate growth. Award range: $250,000 to $500,000

  [https://www.ncbiotech.org/funding/company-funding](https://www.ncbiotech.org/funding/company-funding)

- **Federal SBIR/STTR grants** – The Small Business Innovation Research (SBIR) program is a Federal funding opportunity with over $2 billion available to support research and development projects. The complementary Small Business Technology Transfer (STTR) program uses a similar approach to fund public/private sector partnerships between small businesses and universities or research institutions. The SBTDC offers personalized one-on-one counseling to determine how to effectively incorporate federal SBIR/STTR grants into your funding strategy, helps identify grant opportunities, and provides grant application review. [http://www.sbtdc.org/programs/tech/sbirsttr/](http://www.sbtdc.org/programs/tech/sbirsttr/)

- **Listing of Funding Sources: Investors, Grants, Loans and More**
  [https://www.ncbiotech.org/resources/entrepreneur-resources](https://www.ncbiotech.org/resources/entrepreneur-resources)

Events

- LaunchBio "Larger than Life Science" Monthly events - A monthly event held in the atrium level of the newly renovated Chesterfield Building in downtown Durham from 4-7 pm on first Thursdays. We welcome everyone interested in building a strong support network for North Carolina’s life science and healthcare innovators for an evening of unconventional conversation. [https://launchbio.org/](https://launchbio.org/)

- NC Biotechnology Center list of events - [https://www.ncbiotech.org/events](https://www.ncbiotech.org/events)
- Center for Entrepreneurial Development - [https://cednc.org/events](https://cednc.org/events)