



TARGETED RECRUITMENT  
SPRING 2021

## Seeking: Senior Scientists & Senior Engineers

Biological, mechanical, electrical, and data scientists + engineers for **immediate start**

Email your resume (& tell us what you've worked on in the past!): [careers@vivodyne.com](mailto:careers@vivodyne.com)

### Develop a breakthrough wetware+software biotech platform

Vivodyne, Inc. is an exciting startup from **UPenn Bioengineering** that's creating a platform technology to answer a pressing question in biotech: **how can we improve the accuracy, speed, and breadth of the modern drug development pipeline?**

**We are creating a groundbreaking 3D tissue culture pipeline and statistical inference engine to test drugs, biologics, and immunotherapies directly on ultra-realistic, bioengineered human tissues. All at pharmaceutical-grade throughput.**

### Cutting-edge biotech, top salaries / bonuses, and great startup equity

Join an interdisciplinary team of biomedical, micromechanical, electrical, software, and data scientists & engineers that are disrupting the pharmaceutical pipeline. **Our platform tests biologically rich, lab-grown human organ tissues in 10,000+ different conditions in parallel. Together, we're setting the stage for a future of personalized therapies and targeted drug development, independent of animal experimentation.**

Interest in Vivodyne is booming with several independent research agreements already being instituted with global pharma companies like GSK. We are a well-funded, VC-backed startup and offer highly competitive benefits, generous salary and equity, and attainable, goals-based bonus packages that accompany exciting work and a lively culture.

Our **guiding principles** are simple: we balance vision, execution, and a flair for creativity to design platform technologies that advance human health at the fastest pace possible.

Come work with us in the heart of Philadelphia at the spacious, high-end lab suite we are building from the ground up directly across the street from the Liberty Bell & Independence Hall, where the U.S. Constitution was signed. In a vibrant and historic city neighborhood, we face two beautiful federal parks, are surrounded by great restaurants and happy-hour bars, and offer in-building private parking (or equivalent bike/ride sharing) for free. We take social justice seriously and work actively to support equality in the workplace.

Individuals seeking employment at Vivodyne are considered without regard to race, color, religion, national origin, age, sex, marital status, ancestry, physical or mental disability, veteran status, gender identity, or sexual orientation. **Applicants must be authorized to work in the United States.**

## Vivodyne Specialties: Biotech / Tissue Engineering

### Requirements

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- **Ph.D. or Postdoc** in bioengineering, biotech, or biological sciences that is relevant to tissue engineering, organs-on-chips or organoids, or integrative/developmental biology
- **Highly skilled** in **3 or more** of the following:
  - Microfluidic platform development (high value)
  - Confocal / lightsheet microscopy
  - Biomimetic 3D tissue engineering
  - High content image analysis
  - Design for high throughput screening
  - Development of novel “-omics” platforms
  - CRISPR or therapeutic mRNA delivery

### Responsibilities

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- **Lead the development of high-fidelity, living tissue models** to create next-generation pharmaceutical pipelines for fundamental research
- **Design tissue-specific models to cure disease**
- **Deploy engineered tissues at scale for fundamental research** and to assay their responses to therapeutics or pathogens
- **Iterate quickly** and employ first principles problem solving to overcome bioengineering challenges
- Smoothly interface with skilled data scientists, software developers and mechanical engineers
- Supervise support roles (research associates and instrumentation technicians)

## Mechanical / Electrical / Systems / Optics Engineering

### Requirements

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- **Ph.D. or Postdoc** in mechanical, robotics, optics, micro/nano, or similar engineering disciplines (or **M.Sc. / M.Eng.** with 5+ years' experience)
- **Highly skilled** in **2 or more** of the following:
  - Complex microfluidics design & fabrication for active fluid control
  - Design and construction of high-precision linear motion systems for metrology or production
  - Biomedical device or scientific instrument design
  - Systems integration, including low-level software and electronics/board design
  - Optics engineering for microscopy/metrology
  - Design for manufacturing, CAM, and assembly

### Responsibilities

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- **Lead the development of an automated robotic system** that tests drugs, cellular therapies, and environmental factors on lab-grown human tissues
- **Design a high-end platform instrument** that includes fluid handling, microfluidic control, and confocal microscopy
- **Oversee assembly and quality control procedures** for instrument development and the support personnel in assembly / quality assurance
- Create elegant, functional product designs that make a sophisticated technology simple to use
- Integrate linear motion stages, drives, and controllers with control software
- Smoothly interface with biological & data scientists

## Software Engineering / ML + AI / Data Science

### Requirements

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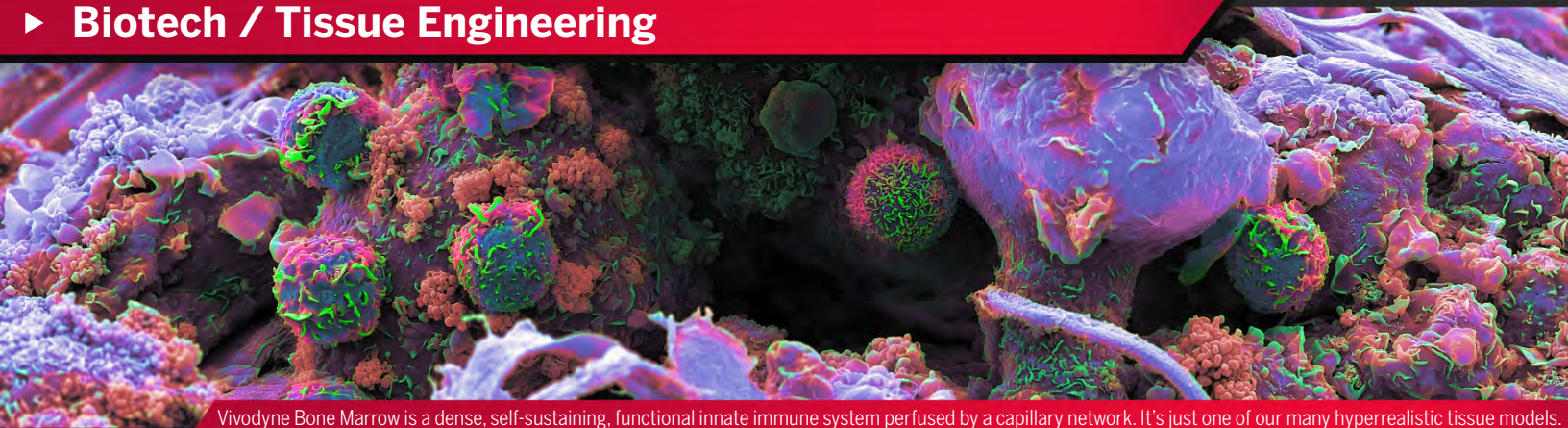
- **Ph.D. or Postdoc** in bioinformatics, data science, machine learning, computer science, or similar
- **Highly skilled** in **2 or more** of the following:
  - Development of novel machine learning frameworks or implementations
  - Software development for scalable data architectures / back-ends / cloud computing
  - Direct experience with scaling ML or compute-intensive pipelines on AWS or similar
  - Web application development (frontend or backend)
  - Single cell transcriptomics

### Responsibilities

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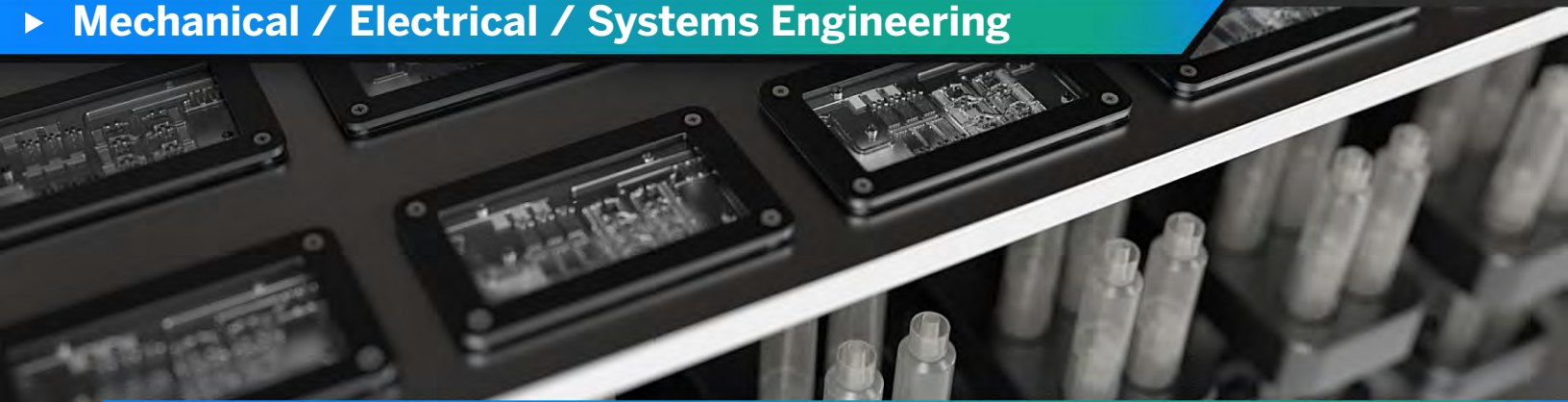
- **Lead development of a machine learning pipeline** for drug discovery that learns from hundreds of thousands of high-fidelity experiments
- **Develop predictive models** of cell-, tissue-, and organ-level outcomes following combinational therapies or modulation of a protein target
- **Supervise software developers** working on user clients and pipeline customizations for clients
- Innovate at the low level (data preprocessing for feature extraction) and high level (managing petabyte-scale data libraries)
- Rapidly refine ML models by deploying thousands of training experiments at a time on living tissues

► **Biotech / Tissue Engineering**



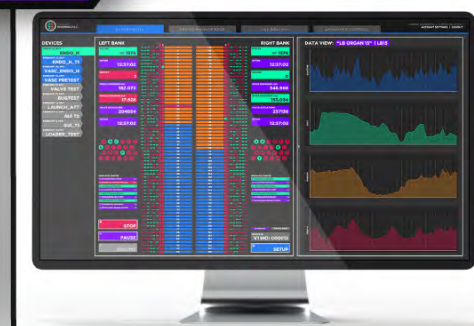
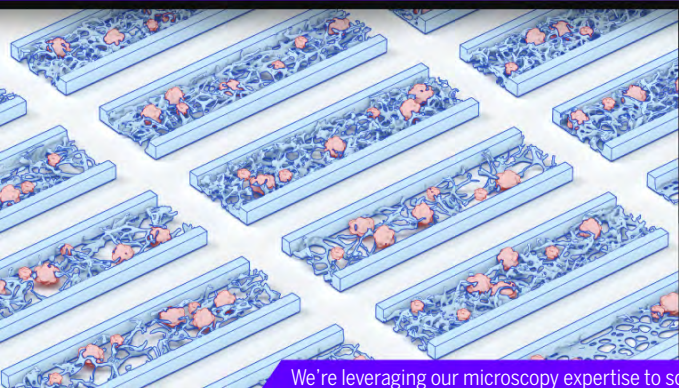
Vivodyne Bone Marrow is a dense, self-sustaining, functional innate immune system perfused by a capillary network. It's just one of our many hyperrealistic tissue models.

► **Mechanical / Electrical / Systems Engineering**



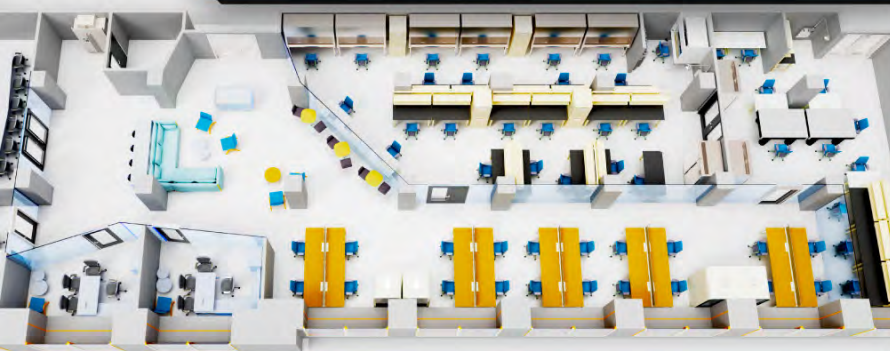
Our exquisite scientific instruments redefine high-content in vitro human experimentation. Help us create the next generation of inward- and outward-facing tools that change how we study biology.

► **Software Engineering / ML + AI / Data Science**



We're leveraging our microscopy expertise to scan and reconstruct thousands of 3D tissues for high-content, high-throughput phenomics at single cell resolution.

**Join Our Ultra-Modern Labs+Offices in Historic, Downtown Philadelphia!**



We're upsizing to a custom 6,100 SF lab space designed by JacobsWyper Architects. Under construction & complete by June!

## **Diversity & Inclusion**

Our entrepreneurial culture celebrates independent thinkers and doers who can positively impact Vivodyne and shape our industry. Our Inclusive Diversity means that we embrace diversity and we foster inclusiveness. It runs through how we recruit, develop employees, conduct business, support clients, and partner with vendors.

## **Voluntary Inclusion**

We provide and promote equal opportunity in employment, compensation, and other terms and conditions of employment without discrimination because of race, color, sex, sexual orientation, family medical history or genetic information, political affiliation, military service, pregnancy, marital status, family status, religion, national origin, age, disability, or any other non-merit based factor in accordance with all applicable laws and regulations.

## **Unsolicited Resumes from Third-Party Recruiters**

Please note that we do not accept unsolicited resumes from third-party recruiters unless such recruiters were engaged to provide candidates for a specified opening. Any employment agency, person, or entity that submits an unsolicited resume does so with the understanding that Vivodyne will have the right to hire that applicant at our discretion without any fee owed to the submitting employment agency, person or entity.