EARLI

The Position

Earli Inc. is currently seeking a high-caliber scientist for the role of Delivery Bioengineer.

About Earli

The mission of the Biotechnology startup Earli Inc. is large and ambitious: to detect and then cure cancer at its earliest stages, effortlessly and pain free. In other words, 'make cancer a benign experience'. The technology which grounds the company's efforts ushers in a new era in "synthetic biomarkers" as a novel methodology to detect cancer and then subsequently localize and then treat the cancer. The enabling technology utilizes "synthetic biomarkers" as a novel methodology to detect, localize and ultimately destroy cancer. Founded by Sam Gambhir, Cyriac Roeding and David Suhy, the company is well funded by world-class entrepreneurs and venture capital firms. Earli, Inc. is currently based in the Biotech hub of South San Francisco.

Who You Are

- You share our sense of dedication, scientific passion, and entrepreneurial spirit
- You are technically gifted, with great hands on experience.
- You work well in a fast-paced and extremely focused startup environment
- You are not only smart, but clever and constantly think outside the box
- You are able to make logical decisions rapidly when there is little time to evaluate options
- You are a natural communicator and relationship builder
- You stay calm under high pressure and stress
- You have the ability to multi-task in a serious way, with an extreme attention to detail
- You become a representative of the core DNA of the company through who you are

Your Primary Responsibilities

The mission of the Delivery Bioengineer is to solve one of the fundamental roadblocks to non-viral gene delivery: the development of novel synthetic materials that can deliver DNA to a broad range of cells *in vivo* in a safe and efficacious manner. Earli is specifically interested in DNA delivery to non-liver tissues.

- Develop hypotheses, design, and synthesize libraries of lipid-like or other well-defined delivery agents that have the potential to achieve non-liver DNA delivery, with precise control over structure, biodegradability, and biocompatibility.

- Perform high-throughput formulation of DNA with these delivery agents and associated helper components, and rapidly screen the resulting nanoparticles biophysically to identify competent delivery formulations

- With other Earli personnel, test the nanoparticles *in vitro* for cellular uptake, intra-cellular localization, and transfection efficiency across relevant cell types; and *in vivo* for evaluating toxicity and biodistribution, as well as efficacy in several cancer models

- Perform tissue-level biodistribution and efficacy analyses to demonstrate non-liver expression of DNA

- Develop strategies to surface-engineer nanoparticles with 'stealth' functionality to escape immune detection, and with targeted modifications to confer tumor-targeting and nuclear localization functionality

- Develop strategies for delivery by alternate routes of administration (e.g. oral, inhaled, etc.)

- Contribute to clinical development of lead formulations including toxicological studies, clinical formulation protocols, and device compatibility studies

Your Required Experience, Knowledge and Skills

- PhD Degree in Chemical Engineering, Bioengineering, Materials Science, Biology or a closely related field. 2-3 years of additional post-doctoral experience is strongly preferred

- Experience in an industry setting preferred, but not required

- 6+ years or more of direct experience in developing non-viral nucleic acid delivery materials (DNA, mRNA, structured RNA), as evidenced by a strong record of first-author papers in high-impact journals.

- Demonstrated expertise and broad intuition in the field of *in vivo* nucleic acid delivery to non-liver tissues and cell types

- Development of lipid-based or polymeric gene delivery systems. A background in synthetic chemistry is a plus

- Physical characterization of formulated complexes including size, charge, encapsulation efficiency, ionization potential, stability etc. is a must

- Experience in designing and implementing high-throughput formulation and characterization techniques using microfluidic/robotic pipelines

- Proficiency in assessing efficacy of formulations in *in vitro* tissue culture models and/or *in vivo* tissues is essential.

- Strong verbal and written communication skills with the ability to present your results succinctly but precisely in team meetings and formal reports

- Ability to think independently, multi-task effectively, and fully integrate into a high achieving team environment

If interested in applying, please attach a detailed CV with research experience and publications listed; or have a well-developed LinkedIn profile for us to be able to assess your background.

We look forward to hearing from you!