

# Next-gen Radiofrequency Semiconductor Materials for Improved Speed, Integration, & Cost

www.sixlinesemi.com

Founded: September, 2022 Employees: 1 FT, 3 PT

## **Leadership Team:**

Katy Jinkins, PhD
CEO, Co-founder, Co-inventor



Materials scientist and engineer with 10 years technical experience, expert in nanotube assembly/devices

Michael Arnold, PhD
Chief Technical Advisor, Co-founder,
Co-inventor



Professor of Materials Science, UW-Madison, world renowned expert in nanotubes and nanotube electronics

<u>Jeff Moore</u> Strategy & Commercial Support Advisor



Seasoned advanced material experience, \$25M+ in non-dilutive funding at last startup prior to exit, strong operations capability

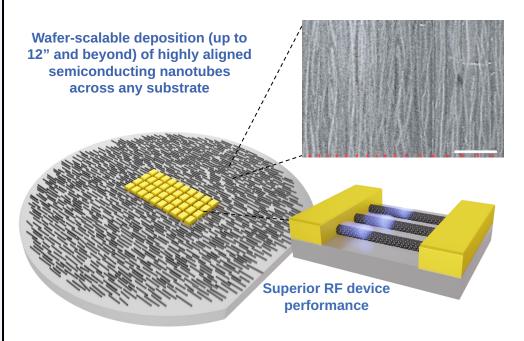
Market: The RF wafer market was \$2B in 2019 and is expected to grow at 8.8% CAGR driven by rising demand for consumer electronic devices, IOT, etc.

### **Achievements:**

- Uniform alignment across
   4" wafer
- State-of-the-art DC transistor performance

**Seeking:** Industrial Collaboration and Initial Investment Funding

**Problem:** Current semiconducting materials are unable to meet performance and room temperature integration requirements necessary for radiofrequency (RF) components in next-gen devices



# Solution: SixLine's Aligned Carbon Nanotubes

- Solved fundamental 30yr challenge of creating dense, highly aligned, semiconducting nanotubes for broad platform integration
- Drop-in technology / process reduces barrier for adoption
- Selective nanotube deposition in registered locations enables multi-step fab processes/integration
- Processes are intrinsically scalable / manufacturable
- IP is protected by 8+ patents including composition of matter

# Superior Performance/Cost Advantages

- Projected frequencies 3-8× over conventional materials
- 1D form factor leads to faster device switching
- · Larger data transmission bandwidths
- 30-60% lower IC chip costs vs GaAs
- 250% more domestic fab facilities accessible