

Proposers' Day Conference for Molecular Information Storage (MIST)

Advanced Sensing Technologies (AST)
Intel Labs, Intel Corp

Lead Investigator: Xing Su, Ph.D.

- 2 Ph.D. molecular biologists
- 1 Ph.D. physical chemist
- 1 Ph.D. device Physicist
- 1 Ph.D. photonics scientist



Briefly describe research areas of interest

1. Develop a set of semiconductor-based DNA synthesis technologies
 - $>10^3$ fold higher throughput
 - $>10^8$ fold lower cost
2. Develop data compression algorithm to reduce DNA chemistry workload



Summarize your unique qualifications and capabilities

15 years biosensor research

- Many inventions in electronic DNA sequencing
- New inventions in DNA for information storage (data compression and Device for DNA synthesis)

Leveraging Intel capabilities

- Miniaturization
- Massive parallelism
- Integration



Specific capabilities your group is seeking

- Informatics
- DNA chemistry
- System engineering



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Intel Labs, Intel Corp

408-799-1096

xing.su@intel.com

