



National Human Genome Research Institute
National Institutes of Health
U.S. Department of Health and Human Services

NHGRI Advanced DNA Sequencing Technology Development Meeting

April 6 – 7, 2011

San Diego, CA

Wednesday, April 6

Participants arrive throughout the day.
Registration open from 5:00-8:30 pm
Poster room available for set-up from 5:00-8:30 pm

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|----------------|---|
| 5:30 pm | Welcome / Program Overview |
| 5:45 pm | Session I: Sequencing by Synthesis Systems
<i>(25 min. + 5 min. discussion each)</i> |
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| John Thompson | <i>Simplified Sample Preparation for Single-Molecule Sequencing:</i> |
| | <i>Single-Step Capture and Sequencing of Natural DNA</i> 27 |
| Steve Gordon | <i>Low Cost, Long Read Sequencing by Synthesis</i> 15 |
| 6:45 pm | Poster Reception |
| | <ul style="list-style-type: none">• presenters whose last names begin with A-L at boards 7:00-7:45• presenters whose last names begin with M-Z at boards 7:45-8:30 |
| 8:30 pm | Adjourn for the day |

7:30 am Continental breakfast and registration

8:00 am Session II: Evaluating & Implementing Disruptive Technologies

Chad Nusbaum, co-director, Genome Sequencing and Analysis Program, Broad Institute

8:45 am Session III: Sequencing by Synthesis – Key Components
Chair: Steven Gordon (25 min. + 5 min. discussion each)
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Steven Benner	<i>Reagent Innovations to Enable Unlimited, Low Noise Multiplexing, Parallel Genome Analysis, and Genomics Applications</i>	12
John Nelson	<i>"Closed Complex" DNA Sequencing</i>	20
Jekwan Ryu	<i>Deep-Submicron Optical Detection for High-Density High-Throughput DNA Sequencing</i>	23

10:15 am Break

10:35 am Session IV: Nanopores & Sensing Modes I
Chair: Daniel Branton (25 min. + 5 min. discussion each)

Stuart Lindsay	<i>Sequential Reads of DNA Sequence by Recognition Tunneling</i>	35
Tomoji Kawai	<i>Development of Gating Nanopores for Single-Molecule DNA Electrical Sequencing</i>	8

11:35 am Lunch and Posters

1:45 pm Session V: Nanopores & Sensing Modes II
Chair: Amit Meller (25 min. + 5 min. discussion each)

Marija Drndic	<i>Graphene-Based Nanopore Devices for DNA Sequencing</i>	31
Eric Ervin	<i>Towards Direct Sequencing of Single Stranded DNA Using a Biological Nanopore</i>	55
Ping Xie	<i>Nanowire-Nanopore Transistor for DNA Detection</i>	9

3:15 pm Break and Posters

5:00 pm Adjourn