

เรื่อง “Next-Gen Sequencing 102: Genome Analysis Workshop based on
GATK-Broad Institute software package” และ “ Functional Genome Analysis Workshop

based on Partek Genomics Suite (Partek GS)”

ระหว่างวันจันทร์ – พุธสัปดาห์ที่ 3–6 มีนาคม 2557

ณ ห้องคอมพิวเตอร์ 317 ชั้น 3

อาคารเรียนใหม่ โรงเรียนพยาบาล โรงพยาบาลรามธิบดี

เนื้อหาหลักสูตร

Day 1: March 3, 2014

8:00-8:45

Registration

8:45-9:00

Opening ceremony:

The CEO of Thailand Center of Excellence for Life Sciences (TCELS)

9:30-10:00

Medical Genomic Center, Mahidol University (Wasun Chantratita)

10:10-10:10

Opening address (agenda etc)

10:10-10:40

Intro to NGS for GATK

10:40-11:00

Overview of GATK & Best Practices

10:00-11:20

Mapping & Dedupping

11:20-11:45

Indel Realignment

11:45-12:00

Coffee break

12:00-12:30

Base Recalibration (BQSR)

12:30-13:00

Reduce Reads

13:00-14:00

Lunch break

14:00-14:50

Variant calling (UG & HC)

14:50-15:30

Variant Recalibration (VQSR)

15:30-15:55

Coffee break

15:55-16:20

Genotype refinement & Functional Annotation

16:20-16:45

Variant manipulation & analysis

16:45-17:00

Intro to parallelism for GATK

17:00

End

Day 2: March 4, 2014

9:00-9:10	Opening address (agenda etc)
9:10-10:30	Quality control of variant analysis
10:30-11:00	Coffee break
11:00-12:00	Adapting the Best Practices for non-human analysis
12:00-13:00	Lunch break
13:00-13:25	Introduction to Queue
13:25-14:15	Queue 101
14:15-14:30	Coffee break
14:30-15:15	Parallelism with Queue
15:15-16:00	Advanced topics
16:00	End

Day 3: March 5, 2014

9:00-16:00	An all-day hands-on session
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Day 4: March 6, 2014

9:00-11:00	Sequence alignment, Optimizing Alignment, Interpreting QAQC results of sequence data with Partek® Flow
11:00-11:15	Break
11:15-13:00	RNA-seq analysis and visualizations with Partek® Flow and Partek® Genomics Suite
13:00-14:00	Lunch
14:00-15:30	Biological Interpretation and miRNA-Seq Integration with Partek® Genomics Suite
15:30-15:45	Break
15:45-17:00	Chip-seq with Partek® Genomics Suite
