Broad Institute
Sixth Annual Retreat

November 8 – 9 | 2010

New Research Building
Harvard Medical School

Cancer genome projects
Metabolite profiling of disease signatures
Evidence for gene flow from Neanderthals into modern h
Visual representation of scientific information
Crohn's Disease – Genetics, biology, and the microbiome

Diagnosing mitochondrial disease through targeted sequencing
Integrative genomics to tumor targeting in ovarian cancer
Systematic determination and analysis of chromatin state dynamics in nine human cell types
Large-scale characterization of the functional effects of lincRNAs in mammals
Mapping the translatome: The collection of newly translated proteins in the cell

transcript profiling: Luminex and Nanostring
me sequencing to discover genes for plasma lipids
The human microbiome in health and disease
Psychiatric GWAS Consortium generates new insights into the biology of psychiatric disease
Cell-type specific mRNA profiling in mouse models of neurodegeneration

Targeting AMKL
Transcript reconstruction and genome annotation using RNA-Seq
scovery of signaling components identifies new branches in mammalian antiviral pathways
: A connection between artificial and natural selection and disease predisposition
Ai screening for novel cancer metabolism targets

Neuroengineering: Molecular and optical axis of control
evolution of drug resistance in clinical isolates of *C. albicans*
aches to identify mechanisms of drug resistance

Small molecule probes of *M. tuberculosis* biology and virulence
Relating cancer genetic features to small-molecule sensitivity
Novel role of HDAC Inhibitor for treating post- traumatic stress disord
Connecting the dots: Emerging technologies in sequencing
Approaches for studying pluripotency

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BROAD INSTITUTE

Information

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HMS
New Research
Building

Information

Wireless Access

Click on your web browser and agree to the terms of use for Harvard wireless. No username or password is required.

Overflow

The Bray Room, Pechet Room, Room 216, and Room 217 are available for overflow during the retreat (see map for room locations).

Mother's Room

A Mother's Room is located within the first floor women's restroom, just outside the Pechet Room (see map). Room 214 on the second floor may also be used as a Mother's Room. Both rooms are available on a first-come, first-served basis.

Free Shuttle Service

November 8 – 9
320 Charles and 7 Cambridge Center
8:00AM – 6:00PM

Shuttle buses will run continuously between 320 Charles Street, 7 Cambridge Center and the conference venue on both days of the retreat. Buses will arrive in *approximately* 10-15 min. intervals with the last bus leaving the conference venue at 6PM.

Shuttle buses will pick up and drop off at the main entrance of the conference center and both Broad buildings.

Broad Baseball Caps

Sport your very own Broad baseball cap! Caps can be picked up after the first plenary session at the registration desk on the ground floor.

Lunch Offerings

November 8

Vegetable Sandwich
Brie, watercress, cucumbers, tomato, 7-grain bread

BLT
Bacon, lettuce, tomato, sourdough

Smoked Turkey Wrap
Avocado, romaine lettuce, tomato

Santa Fe Chicken Wrap
Sweet corn, black beans, romaine lettuce, chipotle lime mayo

Roasted Portobello Mushroom Salad
Oven-roasted peppers, mixed greens, balsamic dressing

Grilled Chicken Salad
Mixed greens, tomatoes, cucumbers, ranch dressing

Kosher Tote Lunch
Assorted sandwiches from Rubin's Deli, Brookline

All lunches include a cookie, chips, soda, and bottled water

Soup Station
Minestrone

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Lunch Offerings

November 9

Veggie Wrap
Grilled vegetables, hummus

BLT
Bacon, lettuce, tomato, sourdough

Smoked Turkey Sandwich
Sharp cheddar, green apples, cranberry mayonnaise, 7-grain baguette

Basil Grilled Chicken
Red pepper aioli, goat cheese, ciabatta

Roasted Portobello Mushroom Salad
Oven-roasted peppers, mixed greens, balsamic dressing

Grilled Chicken Salad
Mixed greens, tomatoes, cucumbers, ranch dressing

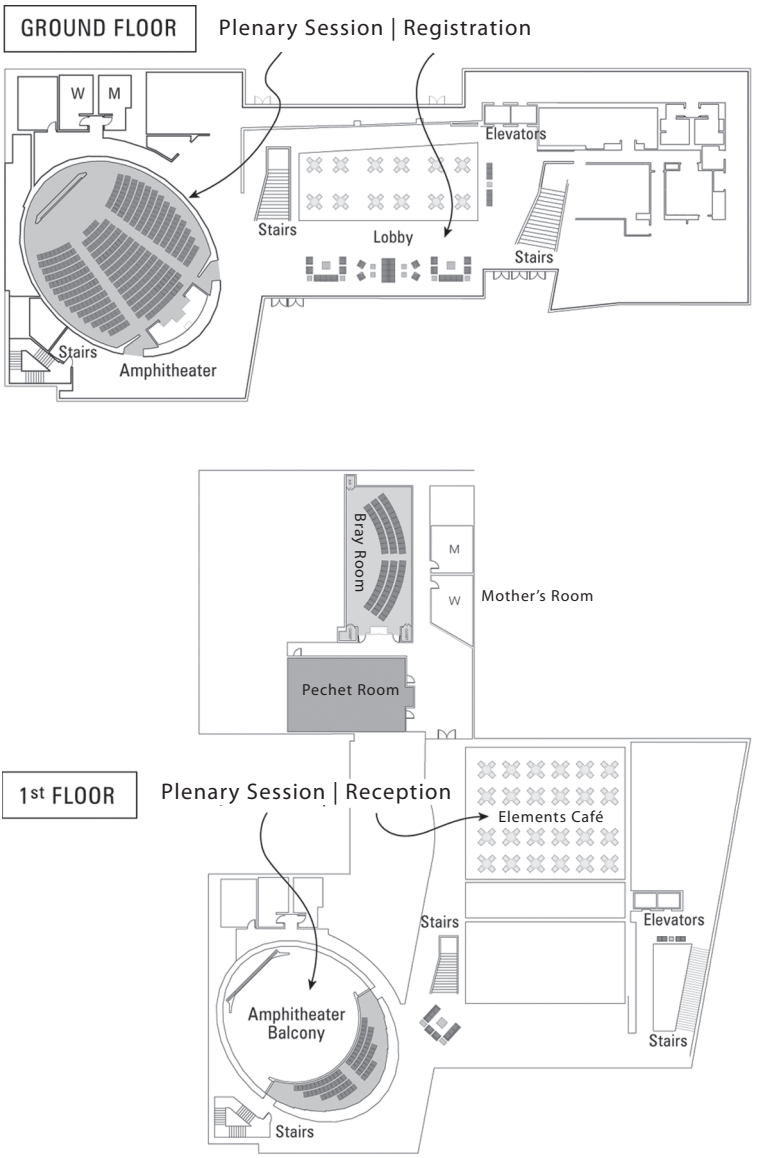
Kosher Tote Lunch
Assorted sandwiches from Rubin's Deli, Brookline

All lunches include a cookie, chips, soda, and bottled water

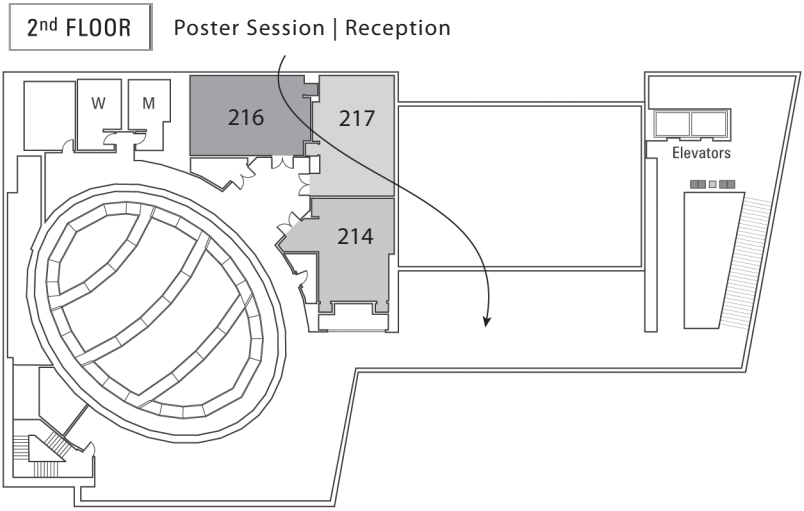
Soup Station
Butternut Squash

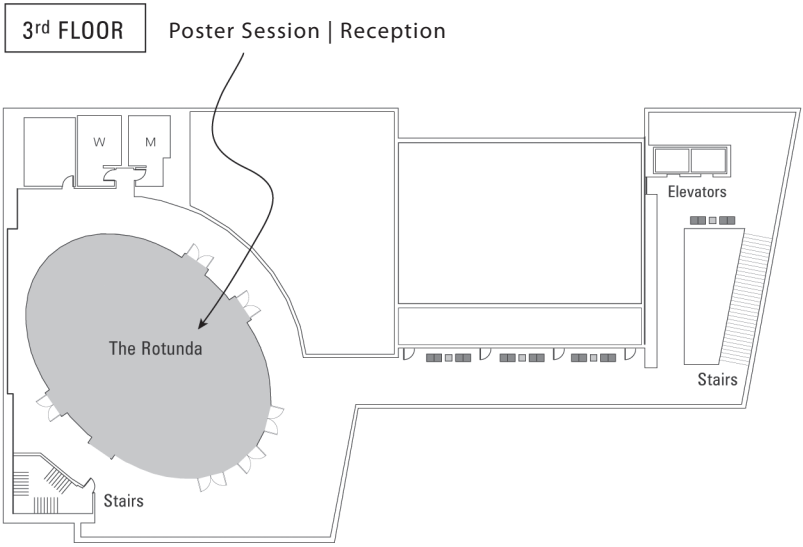
Map

Floor Plans | New Research Building



Floor Plans | New Research Building





Agenda | Monday November 8TH 2010

Sixth Annual Retreat

November 8TH 2010

HMS New Research Building

Agenda | Monday November 8TH 2010

8:15 AM – 9:00 AM

Registration and Poster Session I Set Up

Breakfast

9:00 AM – 9:15 AM

Welcome
Todd Golub

9:15 AM – 10:45 AM

First Plenary Session
Broad Case Studies

9:15 Sarah Calvo
Diagnosing mitochondrial disease through targeted sequencing

9:30 Tony Cheung
Integrative genomics to tumor targeting in ovarian cancer

9:45 Serena Silver
Targeting AMKL

How the Genome Works

10:00 Jason Ernst
Systematic determination and analysis of chromatin state dynamics in nine human cell types

10:15 Mitch Guttman
Large-scale characterization of the functional effects of lincRNAs in mammals

10:30 Bang Wong
Visual representation of scientific information

10:45 AM – 11:15 AM

Break

11:15 AM – 12:00 PM

Second Plenary Session

Emerging Technologies

11:15 Michael Yaffe
Mapping the translatome: The collection of newly translated proteins in the cell

11:30 Wendy Winckler
New technologies for transcript profiling: Luminex and Nanostring

11:45 Clary Clish
Metabolite profiling of disease signatures

12:00 PM – 2:00 PM

Poster Session I and Lunch

Medical and Population Genetics, Metabolism, Psychiatric Disease, Cancer, Infectious Disease, and Broad Scientific Medley

2:00 PM – 3:00 PM

Third Plenary Session

From Genetic Variation to Disease

2:00 Sekar Kathiresan
Exome sequencing to discover genes for plasma lipids

2:15 Gad Getz
Cancer genome projects

2:30 Dirk Gevers
The human microbiome in health and disease

2:45 Stephan Ripke
Psychiatric GWAS Consortium generates new insights into the biology of psychiatric disease

3:00 PM – 3:30 PM

Break

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HMS New Research Building

3:30 PM – 4:15 PM

Fourth Plenary Session

Core Members

3:30 Myriam Heiman
Cell-type specific mRNA profiling in mouse models of neurodegeneration

3:50 Feng Zhang
Neuroengineering: Molecular and optical axis of control

4:10 David Altshuler
Closing remarks

4:15 PM – 6:15 PM

Reception and Poster Session

Agenda | Tuesday November 9TH 2010

Sixth Annual Retreat

November 9TH 2010

HMS New Research Building

Agenda | Tuesday November 9TH 2010

8:15 AM – 9:15 AM

Registration and Poster Session II Set Up

Breakfast

9:15 AM – 10:45 AM

Fifth Plenary Session

Broad Case Studies

9:15 Ramnik Xavier
Crohn's Disease – Genetics, biology, and the microbiome

9:30 Nicolas Chevrier
Systematic discovery of signaling components identifies new branches in mammalian antiviral pathways

Understanding Evolution

9:45 Jason Funt
Evolution's footsteps: Retracing the evolution of drug resistance in clinical isolates of C. albicans

10:00 Kerstin Lindblad-Toh
Recent dog mapping success stories: A connection between artificial and natural selection and disease predisposition

10:15 Cory Johannessen
Systematic functional approaches to identify mechanisms of drug resistance

10:30 David Reich
Evidence for gene flow from Neandertals into modern humans

10:45 AM – 11:15 AM

Break

11:15 AM – 12:00 PM

Sixth Plenary Session

Emerging Technologies

11:15 Brian Haas
Transcript reconstruction and genome annotation using RNA-Seq

11:30 Rob Nicol
Connecting the dots: Emerging technologies in sequencing

11:45 Zach Smith
Approaches for studying pluripotency

12:00 PM – 2:00 PM

Poster Session II and Lunch

Genome Biology, Chemical Biology and Novel Therapeutics, Cell Circuits and RNAi

2:00 PM – 3:00 PM

Seventh Plenary Session

Modulating Genomes and Cells

2:00 Aly Shamji
Relating cancer genetic features to small-molecule sensitivity

2:15 Richard Possemato
In vivo RNAi screening for novel cancer metabolism targets

2:30 Ji-Song Guan
Novel role of an HDAC inhibitor in treating post-traumatic stress disorder

2:45 Sarah Stanley
Small molecule probes of M. tuberculosis biology and virulence

3:00 PM – 3:15 PM

Closing Remarks

Eric Lander

3:15 PM – 5:15 PM

Reception and Poster Viewing

New technologies for t
Exo

Systematic dis
Recent dog mapping success stories
In vivo RN

Evolution's footsteps: Retracing the
Systematic functional appro

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