



IHIWS CONNECTS

Issue No 1



NGS of full length HLA genes: Preliminary results of the Pilot Study

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The ultimate goal of the 17th International HLA and Immunogenetics Workshop (IHIW) is to advance the fields of Histocompatibility and Immunogenetics (H & I) research through the application of Next-Generation Sequencing (NGS) technologies for HLA and KIR genotyping, and to advance the development of NGS technologies tailored to meet the needs of the H & I community.

In 2014, we initiated an international multi-center pilot study in order to assess the performance of various NGS protocols, platforms, and software for full gene typing of classical class I (HLA-A, -B, -C) and class II (HLA-DPA1, -DPB1, -DQA1, -DQB1, -DRB1, -DRB3, -DRB4, -DRB5) genes.

Methods

We initially conducted a survey of twenty-five interested laboratories, using a questionnaire to gather information about the number and type of HLA genes that participants were able to sequence, NGS protocol and instrumentation used, software analysis packages (e.g. commercial or in-house) used, and type of output file formats.
[...]

Read the full text on our website:

ihiws.org/component-ngs-of-full-length-hla-genes-preliminary-results-of-the-pilot-study

Apply to participate:

workshop.ihiws.org



Event Dates & Locations

The 17th International HLA & Immunogenetics Workshop

September 6–10, 2017
Asilomar Conference Grounds
800 Asilomar Ave
Pacific Grove, California 93950

43rd Annual ASHI Meeting

September 11-15, 2017
Hilton San Francisco Union Square
333 O'Farrell Street
San Francisco, California 94102

Steering Committee

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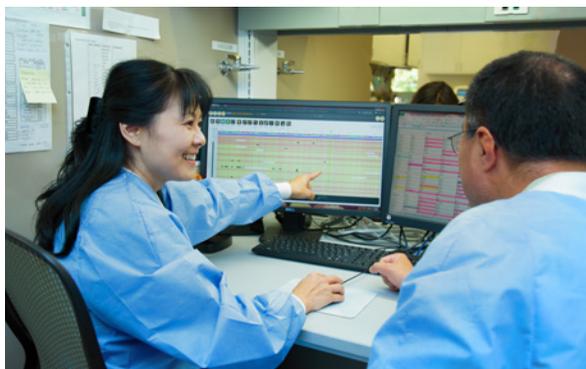
About The Host

The Stanford Histocompatibility, Immunogenetics, and Disease Profiling Laboratory (HIDPL) performs state of the art and cutting edge histocompatibility and genetic testing for solid organ and bone marrow transplantation as well as for disease associations and drug resistance/susceptibility. The HIDPL offers a wide selection of testing services, has an active research and development program and houses and curates a bio-repository of patient specimens. It primarily services the Stanford Hospital and Clinics and the Lucile Packard Children's Hospital but also performs services for outside centers (e.g., Kaiser). It is accredited by the American Society for Histocompatibility and Immunogenetics (ASHI), CLIA, and the state of CA for high complexity testing. The HIDPL performs greater than 60,000 tests per year and employs a staff of more than 50 full-time employees.

Histocompatibility,
Immunogenetics & Disease
Profiling Laboratory

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Latest Updates



Informatics of Genomic Data

The advent of genome-wide SNP typing and NGS genotyping methods heralds new insights and innovations for the fields of histocompatibility, immunogenetics and immunogenomics. However, the scope of the “big-data” generated using these technologies presents new challenges for their manage-

ment, exchange, integration and application. The Informatics of Genomic Data component of the 17th Workshop has been established to assess and address these challenges, with the overall goal of identifying data-related “best-practices” and standards for maximizing the utility of these new methods. The leaders of this component are Steven J. Mack, Jill A. Hollenbach, Martin Maiers, and Paul J. Norman.

The Informatics of Genomic Data component includes the Informatics Core as well as a series of Informatics Projects. The Informatics Core is a central facility for the collection, storage, exchange and analysis of all workshop data and data-analysis results. Initial Quality Control (QC) evaluations, for the enrollment of experimental-data-generating laboratories, and periodic Quality Assurance (QA) evaluations will also be stored and scored in the Informatics Core.

The web-portal for the Informatics Core can be found at <http://workshop.ihw.org>. Using this portal, investigators can register for the 17th Workshop, enroll members of their laboratories and research teams, enroll in components and projects, upload sample demographic data, pedigrees, typing results and typing meta-data, and apply for data access privileges. Raw NGS read data can be submitted to the Informatics Core via the exchange of physical hard drives, or via an SFTP portal that will be opened later this year.

Where possible, the Informatics Core will support centralized data-analyses for projects in in all workshop components; these functions will be activated over the course of 2016. While some analyses may be performed outside of the Informatics Core, the results of those analyses will be stored in the Informatics Core as well.

Informatics Projects are specific to the Informatics of Genomic Data component; these projects pertain to the maximization of the utility of immunogenomic data generated via NGS methods for the study of histocompatibility and immunogenetics. Investigators are welcome and invited to propose Informatics Projects on the management, exchange and meta-analysis of histocompatibility, immunogenetic and immunogenomic data, as well as Informatics Projects related to the development of community standards and reporting guidelines for these data. Investigator participation in current Informatics Projects (see below) is also welcome.

[...]

Read the full text on our website:

ihw.org/core-workshop-functions/informatics-of-genomic-data

Apply to participate:

workshop.ihw.org

Welcome



Dear Colleagues,

Welcome to the official newsletter of the 17th International HLA and Immunogenetics Workshop (IHIWS). The tradition of the International HLA and Immunogenetics Workshop is strong and compelling. Sixteen prior workshops have provided the opportunity and momentum for major technological and scientific progress.

The 17th Workshop promises to further advance the continued international collaboration in research in HLA and Immunogenetics projects. The major goals are to define HLA and KIR genomics and map serologic epitopes using NGS, SNP, and single antigen bead technologies, and to develop robust research and clinical informatics tools for HLA and KIR.

We hope you will join us at the 17th International HLA and Immunogenetics Workshop to be held at the Asilomar Conference Grounds in Pacific Grove, California, September 6 – 10, 2017. This will be followed by the American Society of Histocompatibility and Immunogenetics (ASHI) 44th Annual Meeting September 11 – 15, 2017 in San Francisco, California.

Please set aside these important dates in 2017. We hope to see you in the San Francisco Bay Area during this time.

Yours Sincerely,
Marcelo Fernandez-Viña

Our Partners



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