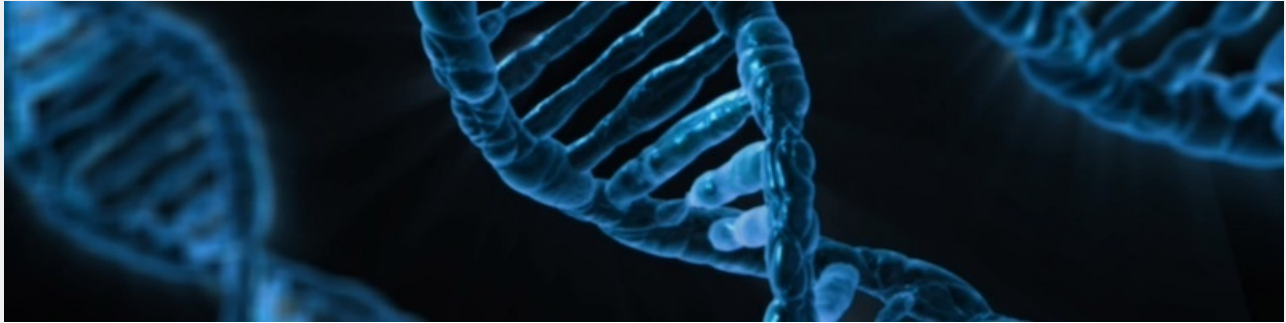


Monday, January 8, 2024 at 17:15:45 Pacific Standard Time

Subject: Integrated Genomics Lab Winter 2023/24 Newsletter
Date: Monday, January 8, 2024 at 3:34:22 PM Pacific Standard Time
From: OHSU Now
To: Craige Mazur



Integrated Genomics Laboratory

***Happy New Year & Best Wishes for 2024
from the IGL team!***

Included Topics:

- IGL Leadership and Organization Changes
- New Staff
- Announcements – qPCR Workshop, Jan 24
- Operations Update – Services, Workflows, Equipment
- Share ideas for new services and technologies
- Shared resource acknowledgement
- Genomics Advisory Committee

Leadership & Organization

As of January 1, 2024, Chris Harrington is stepping down from her leadership of the Gene Profiling (GPSR) and DNA Services Cores. All IGL services and staff will now be directly overseen by Robert (Bob) Searles, who has served as IGL Director since July, 2022. Bob has exciting plans for a more integrated and fully coordinated set of

services in support of RNA and DNA analysis. These changes will allow a seamless experience for core clients from nucleic acid isolation to multiple sequencing applications or targeted RNA and DNA analysis on qPCR and Nanostring platforms.

Stay tuned for a revised and updated IGL website reflecting these changes. Please note that the current iLab GPSR/DNA Services and MPSSR pages will remain until the start of Fiscal Year 2025 on July 1.

For more information and experiment planning, contact:

Robert Searles – IGL Director

Amy Carlos – Lab Manager, library prep and sequencing services

Britt Daughtry – Lab Manager, nucleic acid isolation and qPCR and Nanostring applications

Chris Harrington will continue to serve in an advisory role to the IGL and assist with outreach and education activities through June, 2024.

New Staff

We are pleased to announce the recent hiring of two new members for the IGL team.

Kenneth Crawford, B.A., joined the IGL as an Associate Core Scientist in support of RNA and DNA services in May, 2023. Ken received a BA in Biological Sciences from the University of California at Berkeley and has over 17 years of laboratory experience working as a molecular biologist in biotech and biopharmaceutical industries and non-profit basic research.

Priscila Darakjian, M.S., joined the IGL Bioinformatics team in October, 2023. Priscila has a B.S. in Biological Sciences from the Universidade de Santo Amaro (Sao Paulo, Brazil), an M.S. in Behavioral Ecology from the Universidade de Sao Paulo (Sao Paulo, Brazil), and an MS in Bioengineering from Oregon State University (Corvallis, Oregon). She has been a computational biologist at OHSU for over 18 years and, prior to that, worked at Washington State University, Oracle Corporation, and CH2MHill. She will be working with Chenwei Lin, M.S., on data processing, management, and distribution.

Please join us in welcoming both Ken and Priscilla to our team.

The IGL & Thermo Fisher Scientific are hosting a qPCR training seminar (Jan 24th, 9am-3pm) that covers basics, applications, software, and instrument operation. Attendees will receive half off an IGL QuantStudio qPCR training - a great opportunity for grad students and new lab members!

[Register soon as capacity is limited \(20 attendees\).](#)

Operations Update: Services, Workflows & Equipment

RNA and DNA Isolation

- We offer services for DNA and RNA isolation from a variety of sample types, including blood, plasma, fresh or frozen tissues, and FFPE specimens, with automation that allows up to 96 samples to be isolated at a time.
- The core supports RNA and DNA co-isolation protocols from both Qiagen and Zymo Research.
- We are available to work with you in optimizing methods for collecting and processing samples for nucleic acid isolation in the core or in your lab.
- Access to QIAGEN QIAcube sample processing robots and a SpectraMax i3x Plate Reader are also available for self-service use by trained users.
- For further information or experiment planning, please contact [Britt Daughtry](#)

Library Preparation and Sequencing

- We offer services for a range of RNA and DNA sequencing applications, including single-cell RNA-seq and low input RNA-seq. We are also providing library completion services for a number of more specialized single-cell protocols.
- **The IGL has just received a new Illumina NextSeq 2000.** This instrument replaces the NextSeq 500, which has been removed as a trade-in, and will provide access to lower throughput flow cells at lower cost than is possible on the 500. The 2000 should be set up and running by February 1. Pricing and access will be available in iLab soon.

Single Cell/Nuclei Analysis

- The IGL offers a complete service for analysis of single cells and nuclei using the 10x Genomics platform. Assistance for optimizing sample preparation prior to core submission is available. Please request the single cell sequencing service by placing a service request on the [MPSSR iLab page](#).
- Access to the IGL Chromium Controller system is also available for self-service by trained users. Training is provided by core staff. Contact [Alex Klug](#) for details.

Targeted Gene Profiling and Genotyping

- Targeted gene expression and genotyping services are available using Thermo Fisher Taqman assays and QuantStudio medium to high throughput platforms.
- **Two new QuantStudio 7 Flex instruments** were acquired in 2023 to replace the QuantStudio 12K Flex system. The availability of two qPCR instruments facilitates access by multiple users on the same day.
- Access to the QuantStudio 7 Flex instruments are available for self-service use by trained users.
- A qPCR training workshop is being held on January 24, 2024. See announcement above.
- The core maintains a Nanostring SPRINT system for targeted gene profiling using Nanostring protocols and arrays. Access is available for self-service use by trained users.

Cell Line Authentication

- Accurate authentication of human cell lines using STR analysis and meeting the ANSI/ATCC requirements is available. Contact [Britt Daughtry](#) or [Alex Klug](#) for details.

Custom Oligos through IDT

- Order custom RNA and DNA primers and probes from Integrated DNA Technologies at discounted prices through the IGL. Additional IDT products also available. Contact [Britt Daughtry](#) for details.

Please visit our website for more information on any of the IGL services.

Share ideas for new services and technologies

We welcome input on new technologies or core services for RNA and DNA processing and analysis that OHSU researchers would like to see offered through the IGL Please contact [Bob Searles](#) with your suggestions.

Shared resource acknowledgement

The ability of shared resources to compete for funding, such as shared equipment grants, relies upon a robust record of publications that acknowledge core use. **Please remember to acknowledge use of the Integrated Genomics Laboratory in talks,**

posters, and publications. The use of data generated in an OHSU core facility in a grant application, progress report or publication contains the implicit understanding that the PI or authors will acknowledge the use of the OHSU core facility. The use of universally established identifiers, such as the Research Resource ID (RRID), can help search engines uniquely identify shared resources that are cited in publications.

Suggested acknowledgement text:

(Insert appropriate service or platform) was/were done through the OHSU Integrated Genomics Laboratory (RRID:SCR_022651). The IGL receives partial support from the OHSU Knight Cancer Institute NCI Cancer Center Support Grant P30CA069533 and from the M.J. Murdock Charitable Trust.

Genomics Advisory Committee

The Integrated Genomics Laboratory cores are reviewed and advised by an institutional core advisory committee.

Current members:

Laura Heiser, Ph.D. (Committee Chair).

Andrew Adey, Ph.D.

Donald Conrad, Ph.D.

Arpiar Saunders, Ph.D.

Ted Braun, Ph.D.

Best wishes for a healthy and happy 2024!

To request core services and initiate new projects, please log into the [OHSU iLab system](#).

Integrated Genomics Laboratory cores are located in Richard T. Jones (RJH) Hall 5330 and 5390.

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