

## OPENSPECIMEN

### ROLE OF OFFICE

OpenSpecimen is a biospecimen management tool which provides a scalable solution for biorepositories that meets the needs of a broad group of investigators and biobanks. The ICTR supports OpenSpecimen as an enterprise-wide biospecimen solution. The application is provided free of charge to Johns Hopkins research teams and support from the OpenSpecimen team is provided on a fee-for-service basis. OpenSpecimen performs all standard biospecimen management functions including specimen collection, processing, derivative and event tracking, distribution, specimen discovery, and specimen sharing. The ability to annotate both clinical and epidemiological data, e.g. surgical pathology diagnoses, to specimens and its advanced query capability, and the creation of interfaces to both clinical and research systems, make OpenSpecimen a valuable tool for the study of disease processes, particularly for Precision Medicine initiatives.

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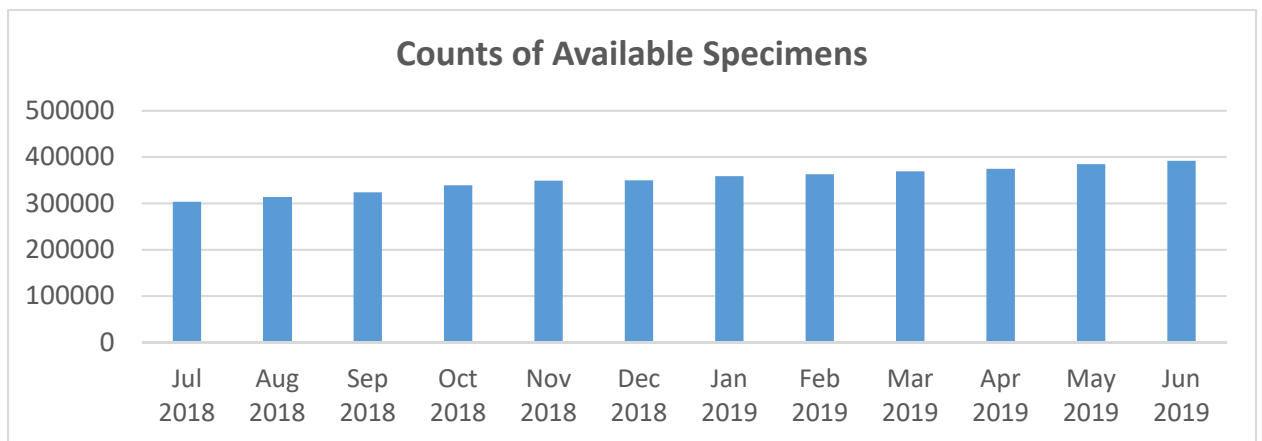
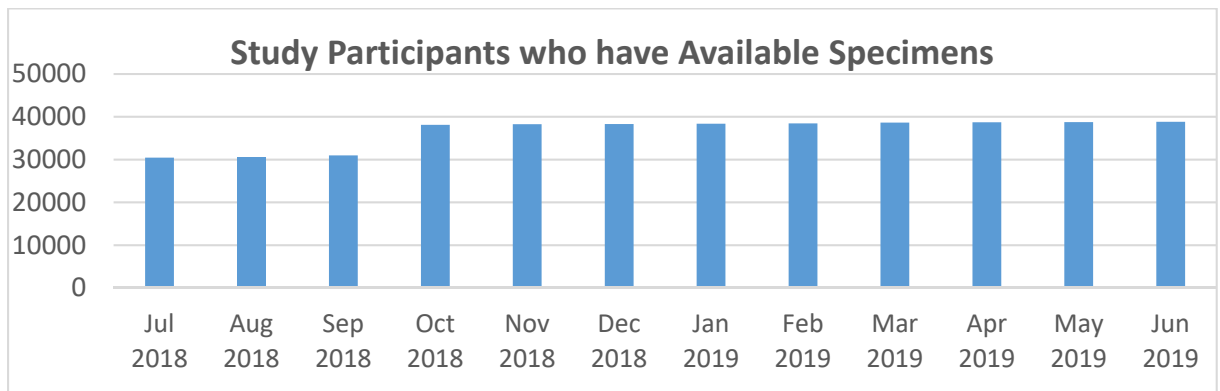
### PERFORMANCE IN THE PAST YEAR

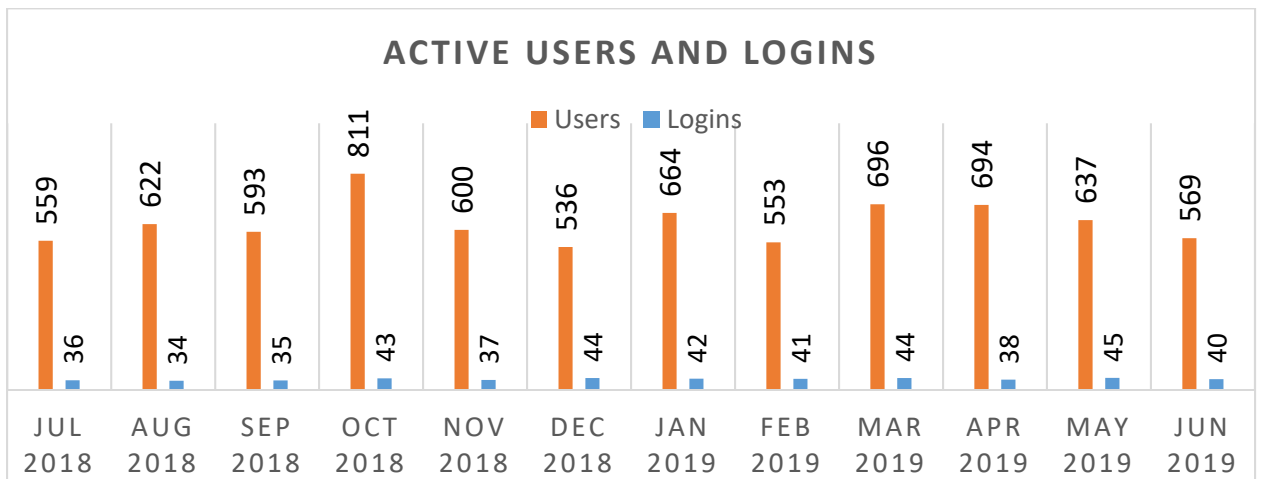
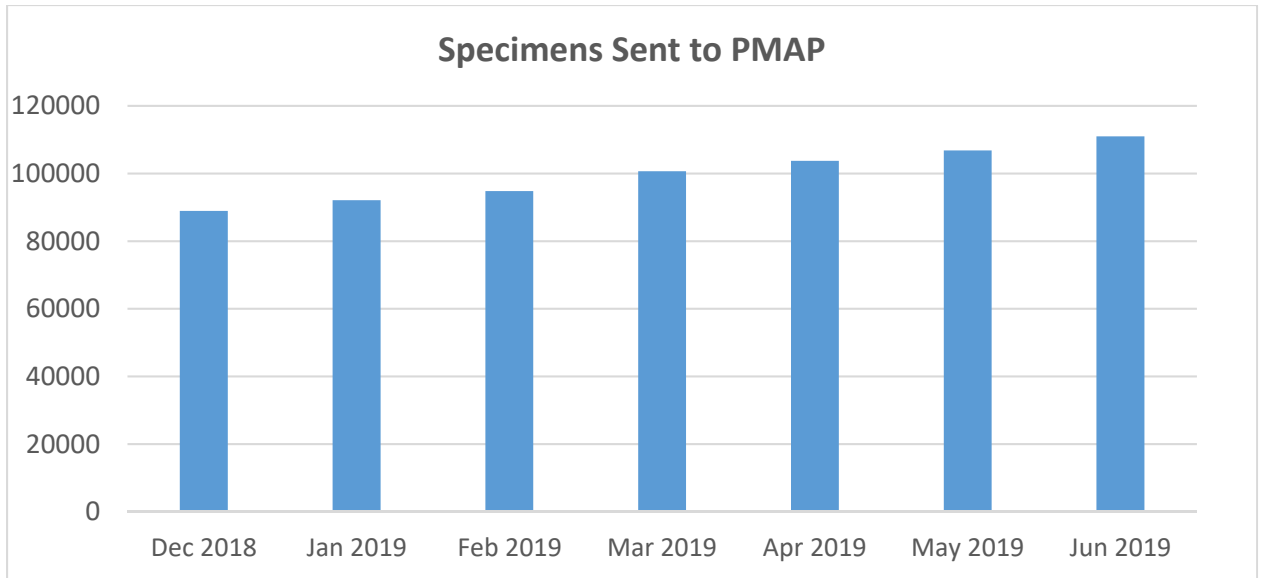
During the year from July 2018 to July 2019, **67 collection protocols** used OpenSpecimen. Additionally, the Translational Research Enhancement Core of the Hopkins-Conte Digestive Disease Center (TREC), which uses OpenSpecimen in its biorepository, provided services to another 24 users for 28 separate collection protocols. In the 8 years since the TREC began using OpenSpecimen, TREC Investigators have published 67 peer reviewed articles, junior faculty have received 6 grants, and a total of 20 grants have been supported.

The Multiple Sclerosis PMCOE detailed their success with OpenSpecimen in their abstract “Biobanking at Scale to Enable Precision Medicine in MS: Logistics and Challenges” for the ACTRIMS Forum 2019, listing members of the OpenSpecimen team as authors.

OpenSpecimen manages 391,720 specimens for 38,813 study participants in those 67 collection protocols. 110,969 of those specimens are sent to the PMAP Precision Medicine platform, a new interface developed this year.

Under our new fee-for-service model, OpenSpecimen may or may not remain free to use, but an hourly fee will be charged for support from the OpenSpecimen team. We will continue to offer monthly training as well as a weekly first-come-first-served office hour free of charge.





#### CHANGES IN THE PAST YEAR

- An IT staff member, Jen Parks, left this year resulting in a temporary reduction of 50% in IT staff support while we hire a replacement.
- Fee-for-service implemented as of July 2019
- 22 new collection protocols were created and are live with OpenSpecimen
- The Pancreas PMCOE collection protocols are now in production.
- Rheumatology at Bayview (including the Myositis and Scleroderma PMCOEs) has collection protocols in development.

- An interface to PMAP sending specimens associated with study participants having Hopkins MRNs was established in January 2019.
- Sample grant language for use of OpenSpecimen is available to study teams.

## NEW DEVELOPMENTS FOR THE UPCOMING YEAR

### Opportunities:

- Upgrade to OpenSpecimen v6.1 which includes:
  - Greater collection protocol workflow flexibility
  - Query enhancements (including sub-queries, filters on aggregates and scheduled queries)
  - Google-like keyword searching
  - Reserving specimens for distribution
- Continue to grow the OpenSpecimen user base, especially for PMCOEs and SOM Biobank users
- Videos of Walk- In Training Sessions will be created to reduce the need for in person training and to more efficiently use limited staff availability
- Update of the OpenSpecimen ICTR webpage
- Quarterly User Group Meetings will be instituted to better serve and grow the number of research teams utilizing OpenSpecimen.
- All investigators using OpenSpecimen will be asked to cite the ICTR in their publications and grant applications and to provide information on publications and grants
- Explore possible interfaces with other biospecimen management systems such as Freezerworks and STARLIMS
- Restrict data export permission by user role in an upcoming release of OpenSpecimen

## INCORPORATION OF SERVICES INTO GRANT APPLICATION

The OpenSpecimen team encourages researchers to contact us at least a few weeks ahead of grant submission so that we may provide you with the information and instruction you will need for your application. We will work with any research teams to incorporate training, personnel and support costs for OpenSpecimen into new grant applications.

## BEST WAY TO WORK WITH PROGRAM

To learn more about OpenSpecimen and how to request a consultation, please visit our webpage on the ICTR website: <https://ictr.johnshopkins.edu/openspecimen>