



Photo: FIND / Ben Phillips

FIND SPECIMEN BANK

Q1 2019 – Q4 2020 Activity Report & Updates

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FIND Specimen Bank

FIND manages a high-quality biorepository with over 480,000 well-characterized samples from more than 14,500 participants enrolled in over 25 sites across the globe. This unique resource is able to provide specimens to support product development efforts across four of FIND's focus areas: TB (60% of samples), malaria (28%), non-severe acute fever management (6%) and hepatitis C (6%). Sample types include sputum, urine, plasma, serum, PAXgene, cell free DNA urine and cell free DNA blood. All specimens are collected at qualified clinics, under a protocol approved by an Institutional Review Board and with informed consent from patients.

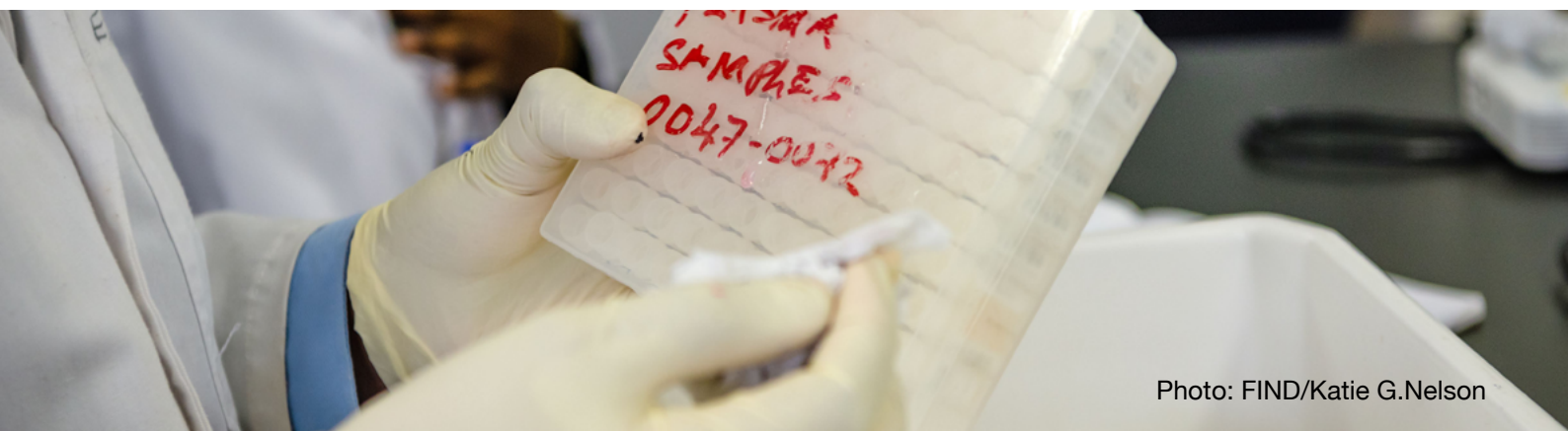
About FIB

Since July 2020, FIND has been supporting a network of strategically positioned biobanks – FIND Integrated Biobanks (FIB) – across Africa, South East Asia, South America and Europe. Working together with our partners, the aim of this network is to build capacity for inclusive, ethical, and efficient biobanking services – improving access to high-quality samples.

FIND's network of integrated biobanks enables for sample collection and distribution to be mobilized locally in response to user need. All ethical, legal and regulatory frameworks are overseen by FIND, who provides the resources, training and support needed to standardize services and makes sure quality benchmarks are met. This helps to ensure the availability of high-quality samples with requests managed through a single point of contact that streamlines distribution and harmonizes resources ready for deployment.

COVID-19 biobank activities

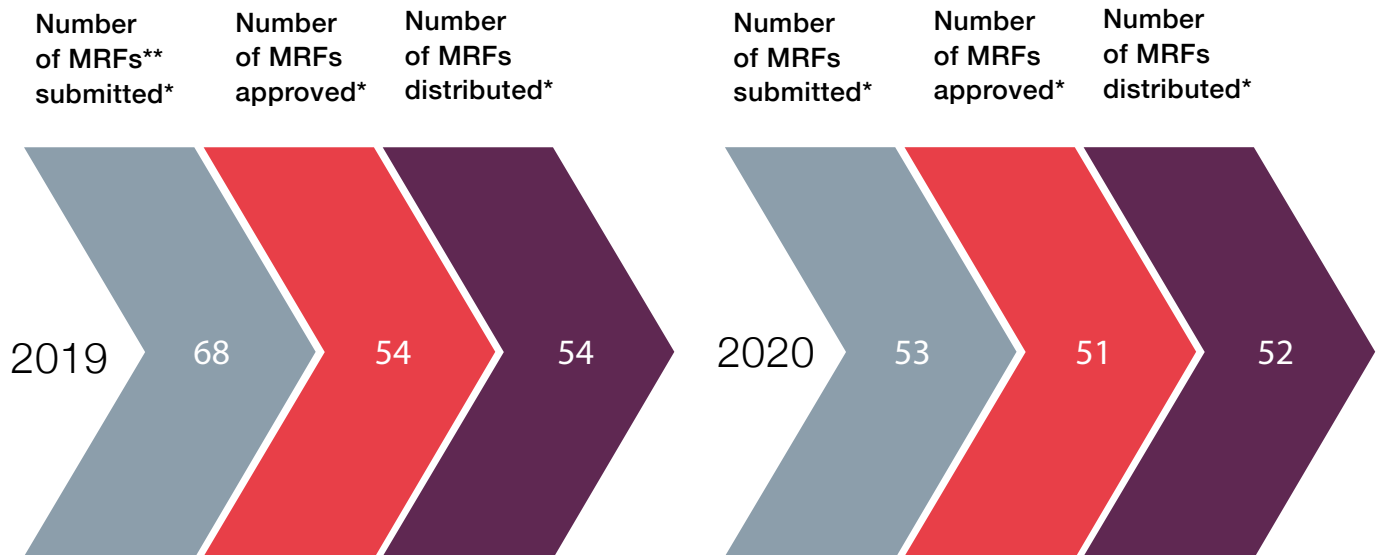
FIND is conducting a prospective study to collect and store bacteriologically and clinically well-characterized reference materials of adult COVID-19 suspects in Peru. Up to December 2020, 253 participants were enrolled at UPCH (Peru). 72 participants were SARS-Cov-2 positive and 148 were SARS-Cov-2 negative (confirmed with PCR results at baseline and week 1 visits). A total of 33 participants were classified as inconclusive/invalid and did not have their results entered in the database. Of these, 15,451 aliquots were collected at baseline visits, 3,059 at week 1, 410 at week 2, 1,875 at week 4, 61 at week 5, 1,446 at week 8, and 63 at week 9. All samples are stored and available for distribution.



Distribution of specimens

Between Q1 2019 – Q4 2020, the FIND specimen bank distributed 19,767 aliquots, fulfilling 106 requests. See the graphs below for details.

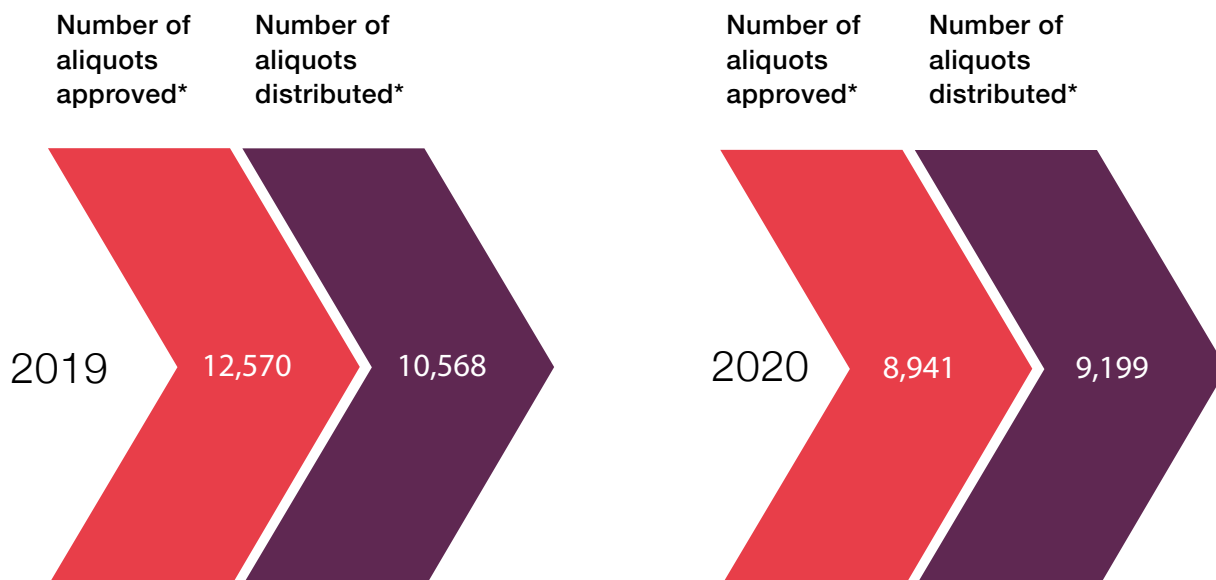
Distribution of material requests



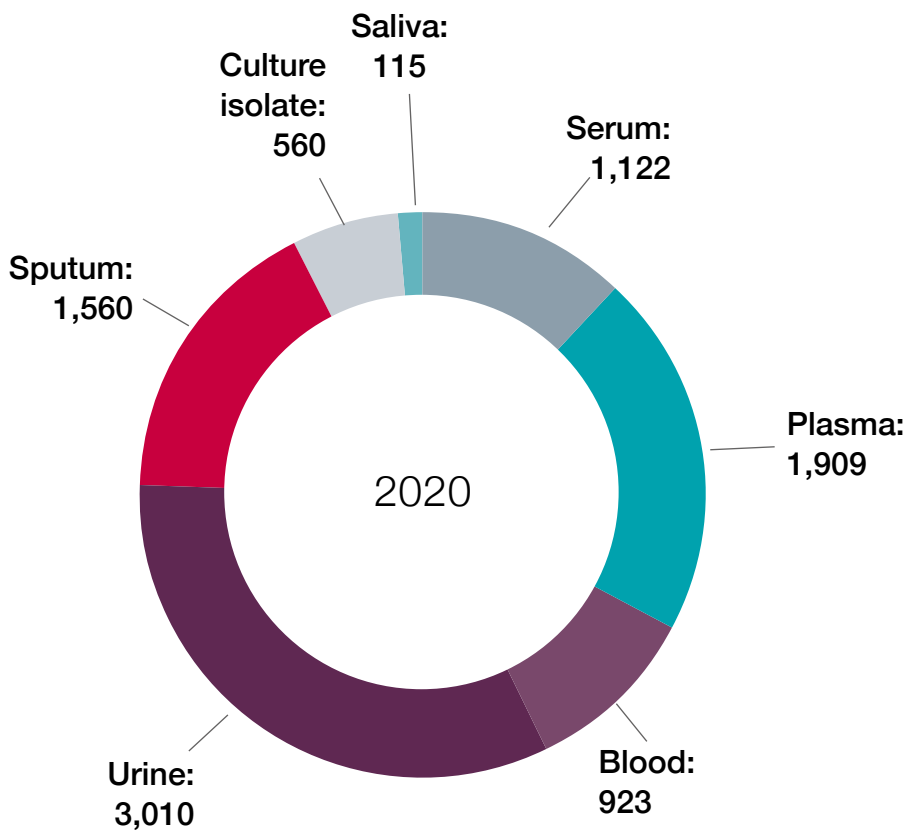
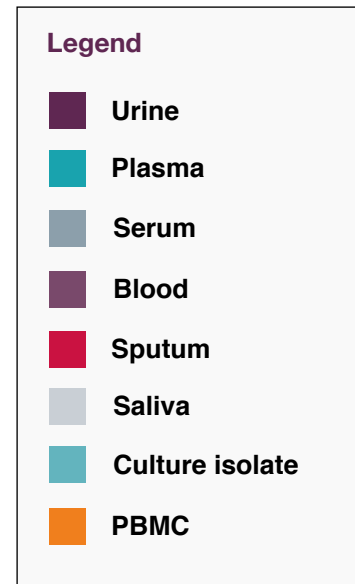
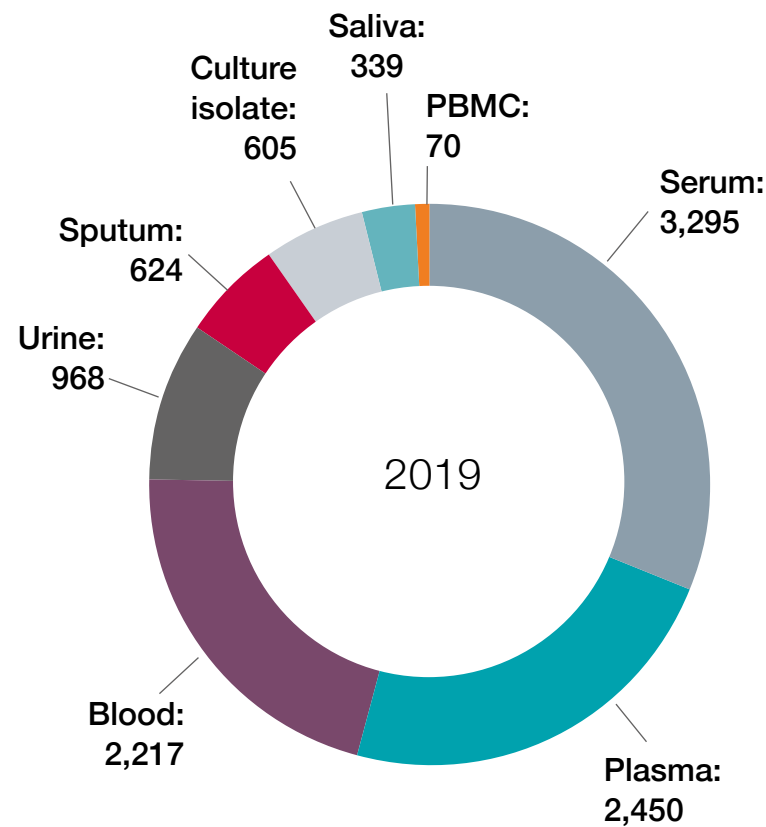
*Some MRFs were approved the previous year but aliquots were distributed the following year.

**request forms

Distribution of samples



Distribution of specimens per type

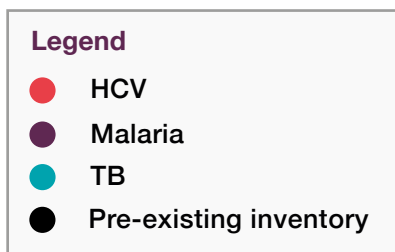
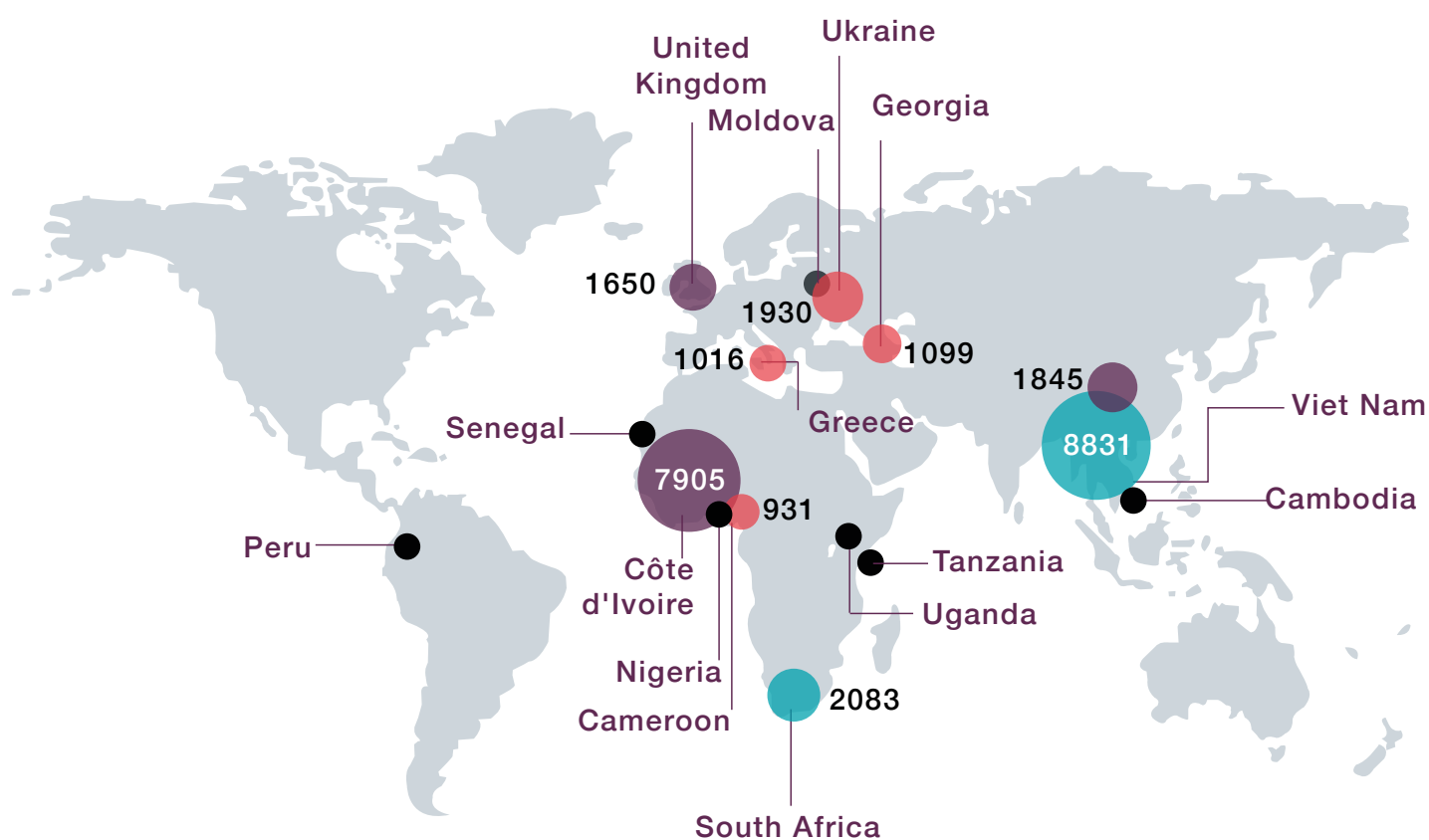


Specimen inventory

The FIND repository currently holds 481,644 aliquots from collection sites in Cambodia, Cameroon, Côte d'Ivoire, Georgia, Greece, Moldova, Nigeria, Peru, Senegal, South Africa, Tanzania, the United Kingdom, Uganda, Ukraine and Viet Nam. FIND also manages the WHO-TDR TB collection, which includes 28,347 aliquots from Spain, The Gambia, El Salvador, Peru, South Africa, Tanzania, Uganda, Viet Nam, Canada, Bangladesh, Brazil, Colombia, and Kenya.

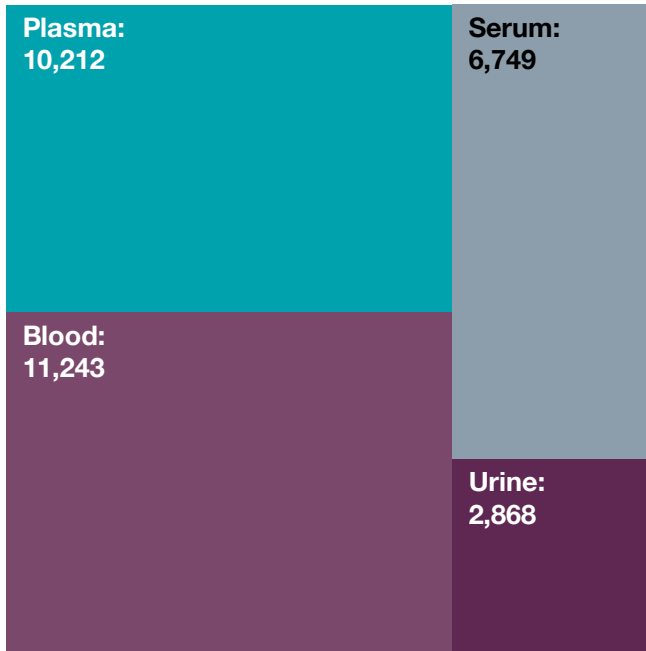
Incoming specimens 2020

HCV: 4,976 specimens **Malaria:** 11,400 specimens **TB:** 10,936 specimens



Specimen inventory

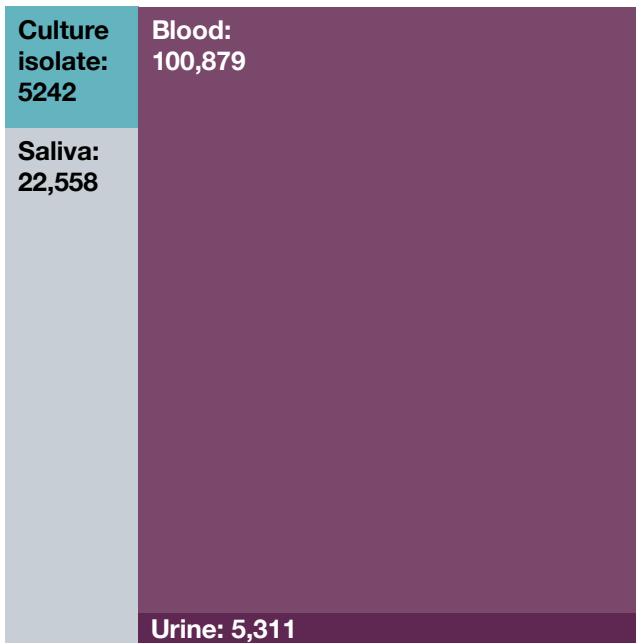
Fever: 31,072 specimens



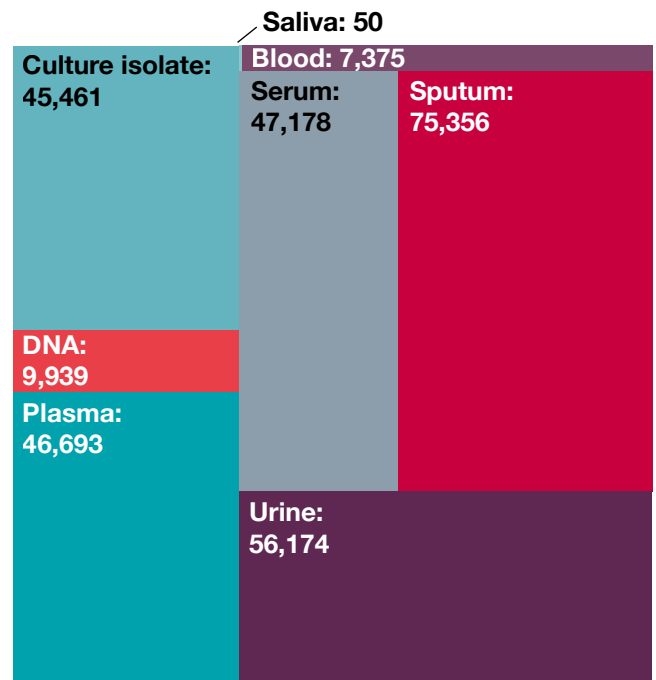
HCV: 28,356 specimens



Malaria: 133,990 specimens



TB: 288,226 specimens



Strains/DNA isolates and matching specimens

Specimens from MDR/XDR-TB patients were collected from globally representative sites in South America, South East Asia, Africa and Eastern Europe. These include sputum, plasma, serum and PAXgene tubes. Strains are characterized by whole genome sequencing and phenotypic testing against first- and second-line drugs and the minimum inhibitory concentration. Over 1,000 strain isolates are currently available.

Number and type of specimen	Number of MDR/XDR participants
10,532 Sputum aliquots	1,227 participants
7,311 Serum aliquots	1,271 participants
8,785 Plasma aliquots	1,271 participants
391 Paxgene aliquots	391 participants
5,729 DNA aliquots	753 participants
17,506 culture isolates	754 participants

Quality control

To improve quality and ensure high standards, FIND implemented quality control and quality assurance processes for blood, sputum, and urine samples. Including recording critical data about the collection, conducting additional baseline testing, and applying stringent monitoring of storage conditions and processing times. For instance, baseline testing of urine samples with dipsticks is now allowing documentation of the physical characteristics of the sample and presence of proteins, glucose, ketones, haemoglobin, bilirubin, urobilinogen, acetone, nitrite, and leucocytes.

Revenue

As FIND is a non-profit organization, requestors are asked to cover all shipping costs. We also charge a small handling fee per sample (US\$ 50–200 depending on the sample type and characterization) towards operational activities. FIND received 334,919 US\$ from material requestors between 2014 and September 2020.

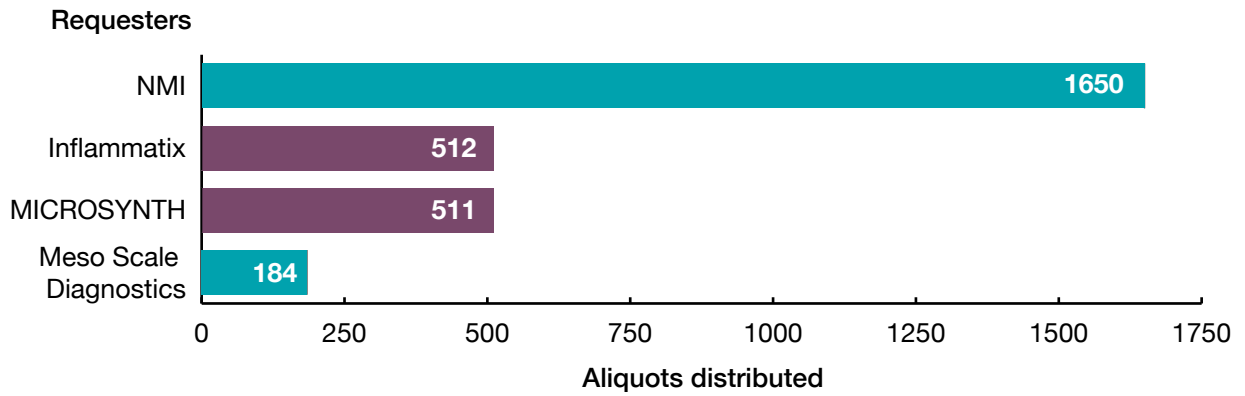


Photo: FIND/Katie G.Nelson

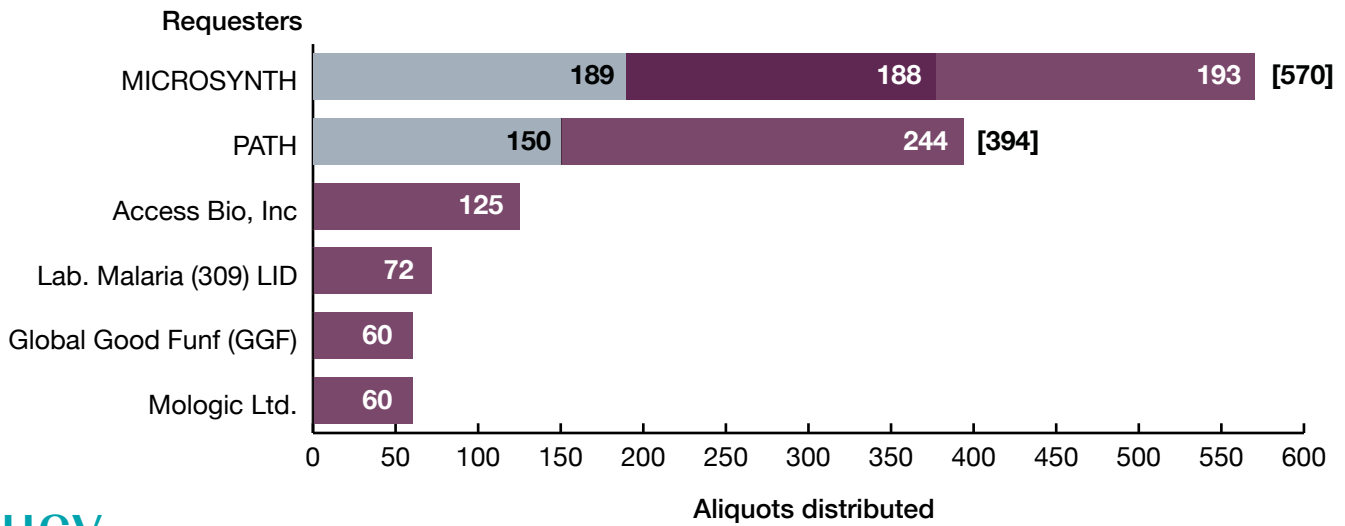
Information on materials
distributed per requester

2019

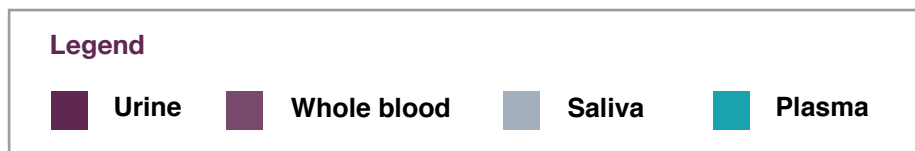
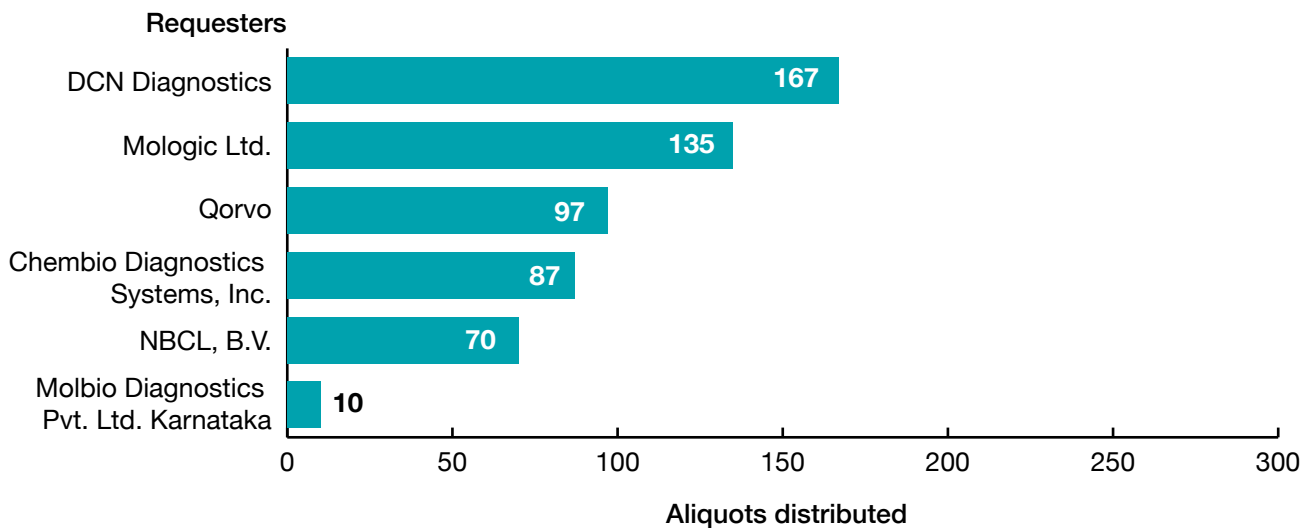
Fever

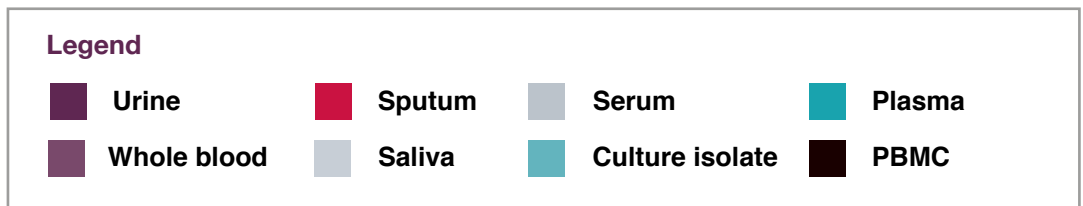
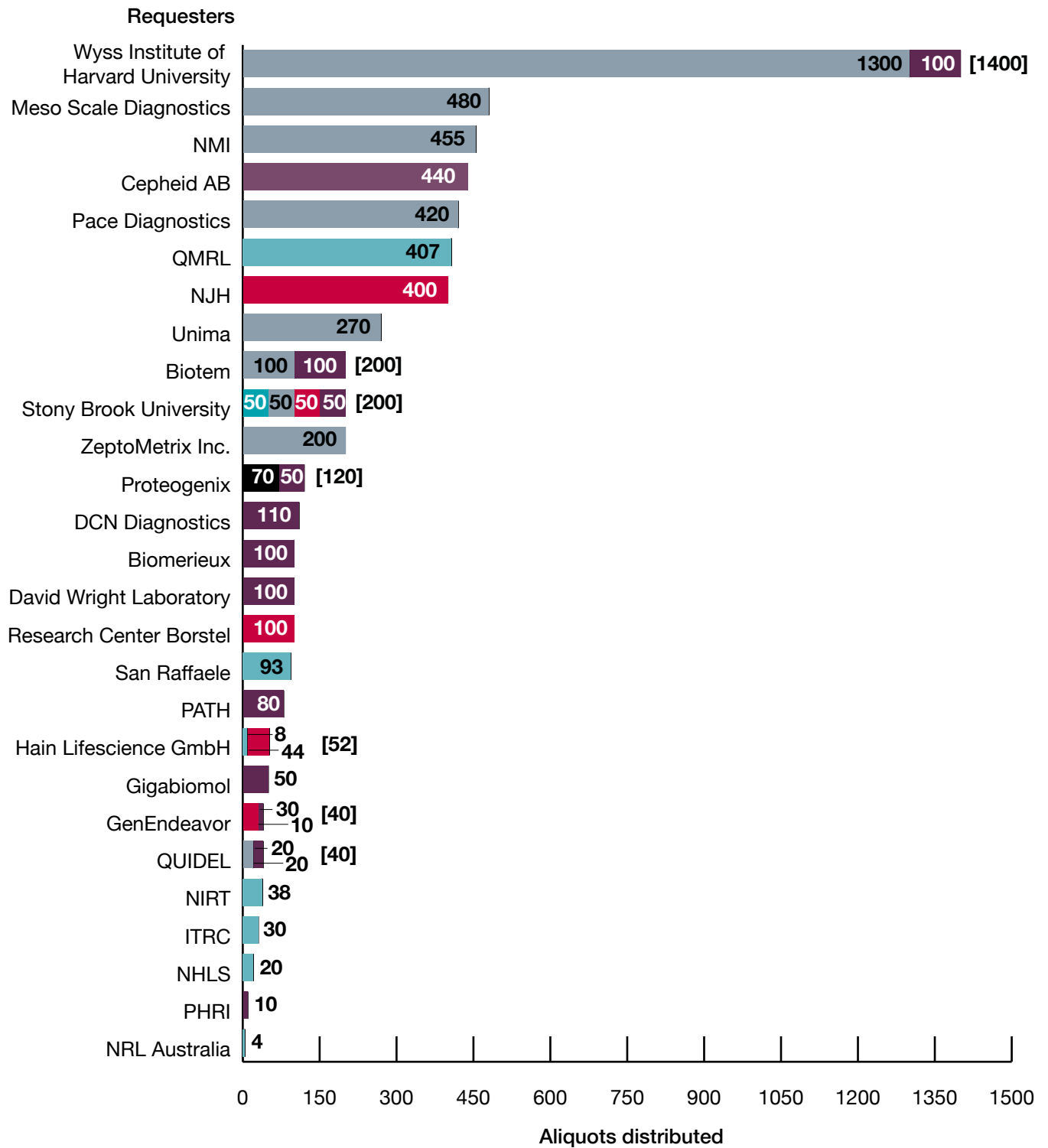


Malaria



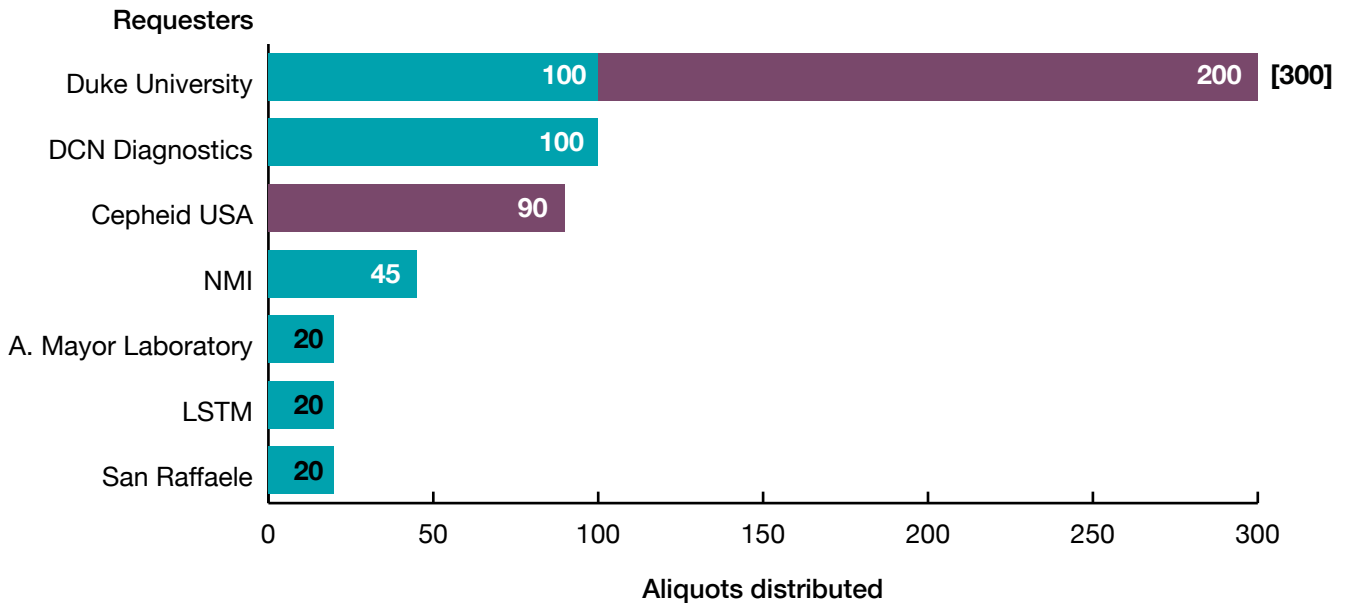
HCV



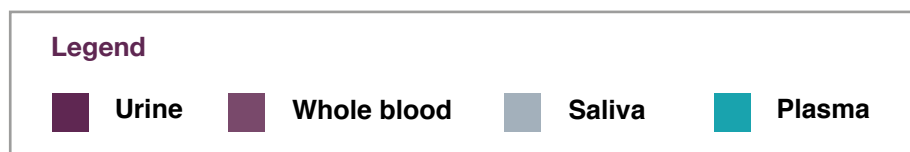
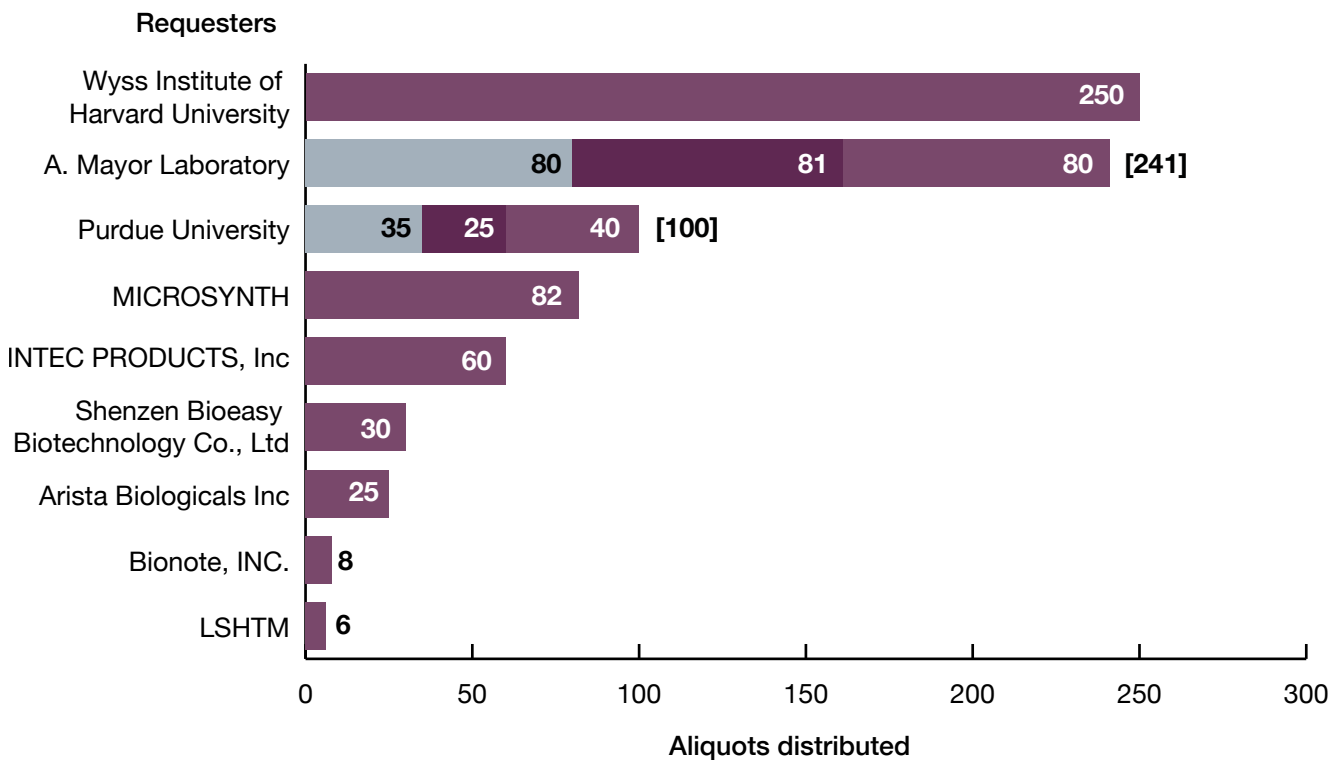


2020

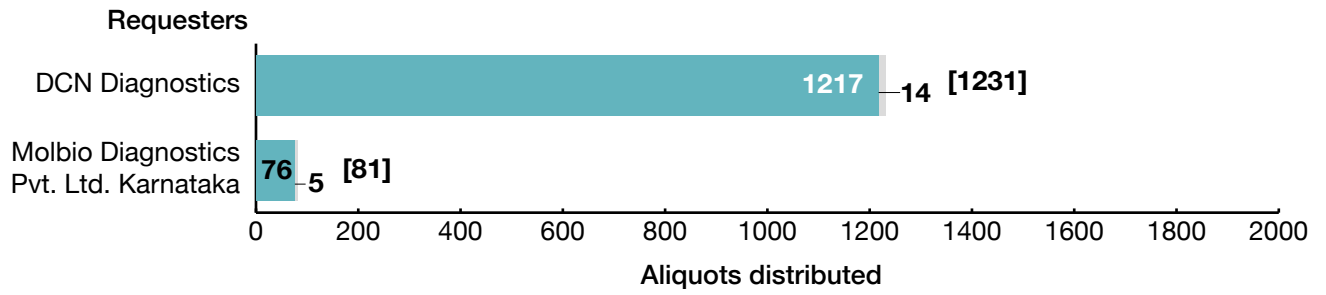
Fever



Malaria



HCV



TB

