UCR SCHOOL OF MEDICINE RESEARCH CORE



ASTRIOS CELL SORTER

NIKON AIR MP PLUS MULTIPHOTON

NANOSTRING

CORE INSTRUMENTS AVAILABLE TO ALL!

SOM RESEARCH INSTRUMENTS ARE AVAILABLE FOR USE TO ALL RESEARCHERS

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CV

NovoCyte Quanteon **Flow Cytometer**



ARRIVING SOON!

SOM is proud to announce the addition of NovoCyte to the Flow Cytometery Core.

This is a user based cytometer offering 25 fluorescent channels and four lasers. State of the art sensitivity and resolution with user friendly software for data acquisition, analysis and reporting.

The NovoCyte Q accommodates high out-put, sophisticated multi-color flow cytometery.

Data and samples can be applied Astrios towards the for more comprehensive sorting.

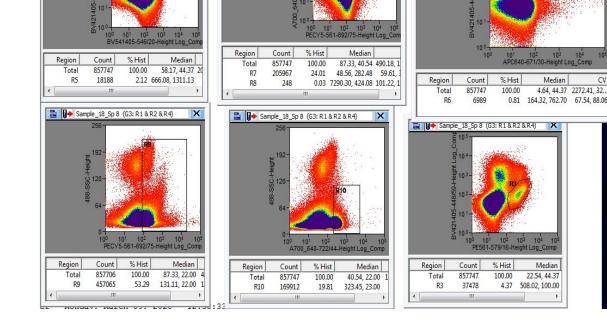
Contact Mary Hamer for training and details

Mary.hamer@medsch.ucr.edu

Cell Sorter Core Facility and

FlowJO software for use **Beckman Coulter Astrios EQs MoFlo:**

State-of-the-Art capabilities in Flow Cytometry and Cell Sorting:



📑 🚺 Sample_18_Sp 8 (G3: R1 & R2 & R4

Sample_18_Sp 8 (G3: R1 & R2 & R4)

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- 4 laser, 14 channel detection •
- 6 way 5ml, 15ml or 50ml collection
- 96 well single cell capable
- Biosafety cabinet (BSL2) containment •
- Sterile sort capability •

Flow Jo software available at a dedicated work station for data analysis of cell sort raw data. No additional charge for software use for first 4 hours with every SOM Cell Sort.

Scheduling is provided through FACES.

Contact Mary Hamer for further info.

Mary.hamer@medsch.ucr.edu

https://somresearch.ucr.edu/cell-sorter-core-facility

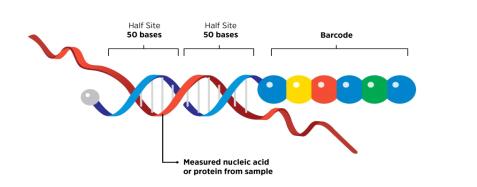
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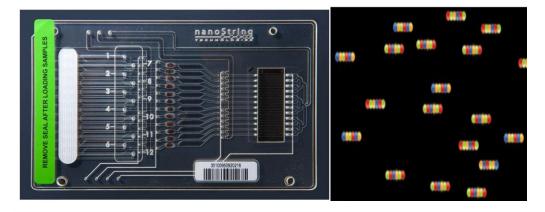
UCR SCHOOL OF MEDICINE RESEARCH CORE



-THE DIGITAL NEWSPAPER-

Digital Counting using Barcoded Probes





nanoString

nCounter

Nanostring technologies offer the only direct digital counting technology with probes that detect up to 800 targets simultaneously. Applications include mRNA gene expression, non-coding RNA, DNA, protein expression. Pre-built Gene expression panels include: Oncology, immunology, neuroscience, autoimmunity, stem cell and custom panels can be made to your specifications.

* New Panels for 2020: include **Glial panel** * **Web access** to UCR Nanostring

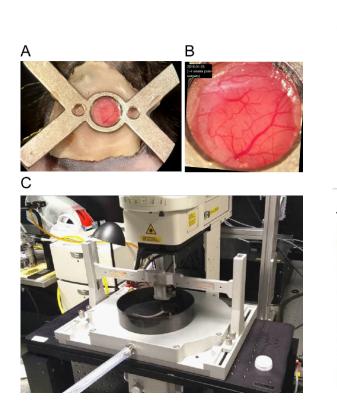
instrument from any computer. Contact Mary Hamer for training and access. mary.hamer@medsch.ucr.edu

Multiphoton Microscopy

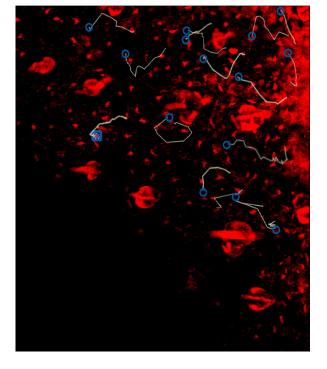
Exciting research using Multiphoton Microscopy here at UCR

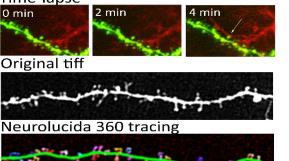
The SOM Research core is making it easier to include multiphoton microscopy in your next study. We are: setting up demos by Nikon and UCR researchers on a 4-6 month schedule, making IACUC protocol templates available, establishing a training video and personnel to assist in training.

Please consult our website <u>https://somresearch.ucr.edu/multiphoton-core-facility</u> for more information Contact Mary Hamer for more details. <u>mary.hamer@medsch.ucr.edu</u>



Live 2-photon imaging in slices tdTomato astrocytes Thy1-GFP dendrite





Mobile Home Cage: preparation set up for 2-photon imaging in live animal study. Dr D. Binder lab, UCR. **Time lapse** imaging study of astrocytes and dendrite spine formation. Dr I. Ethell lab, UCR.

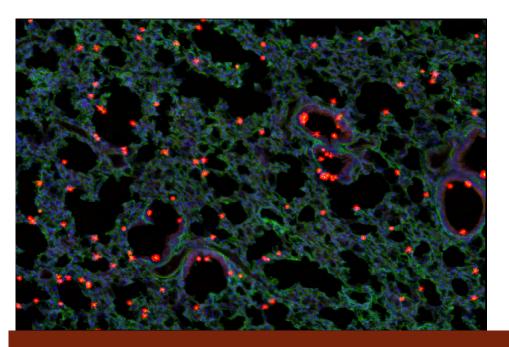
Track of neutrophils showing swarm behavior. Dr D. Lo lab, UCR.

FALL 2020

UCR SCHOOL OF MEDICINE RESEARCH CORE



-THE DIGITAL NEWSPAPER-



HISTOLOGY CORE

Located in Webber Hall, room 1140

INSTRUMENTS FOR USE BY UCR STUDENTS AND STAFF

Cryostat: Leica CM1950 is available for use to cut frozen tissue embedded in OCT compound. The Cryostat is kept at a constant -20°C for ready to use availability. Adjustable sectioning for precision slice thickness and positioning. User must provide their own cutting blades and ethanol for clean-up.

Contact Mary Hamer for training: mary.hamer@medsch.ucr.edu



Leica CM1950

Cryostat









Tissue Processing station: Available for use to process tissue of any type through a series of Ethanol, Citrisolv and Wax embedding steps. Users are able to use established processing protocols or determine their own unique protocol.

Tissue Tek: Available to complete the embedding process of tissue into molds appropriate for tissue size. Paraffin wax used to embed tissue followed by a cooling station to solidify wax.

Microtome tissue cutting station: Available for use to section paraffin embedded tissue to precise section thickness. Users are to provide their own cutting blades.

Contact Mary Hamer for training for all instruments. mary.hamer@medsch.ucr.edu