### 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.

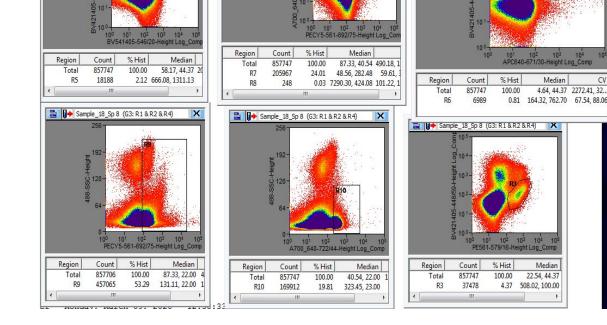
Contact Mary Hamer for training and details

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

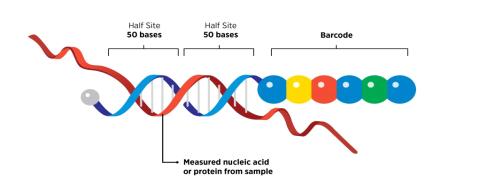
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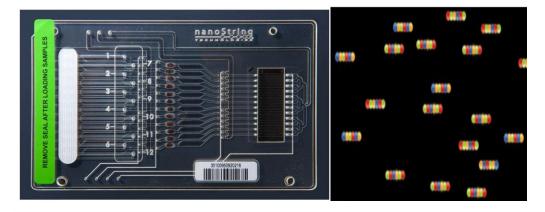
### UCR SCHOOL OF MEDICINE RESEARCH CORE



#### -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

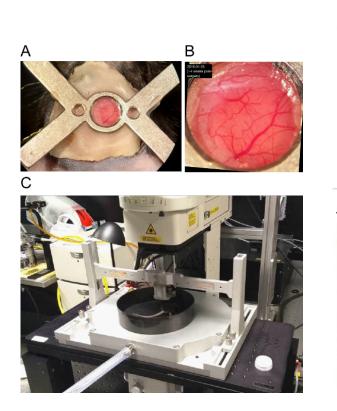
instrument from any computer. Contact Mary Hamer for training and access. mary.hamer@medsch.ucr.edu

## Multiphoton Microscopy

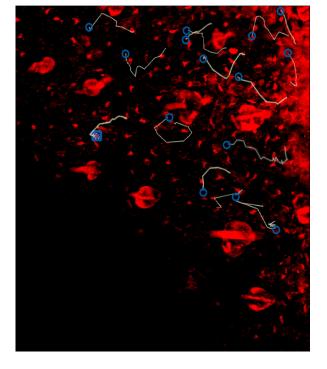
Exciting research using Multiphoton Microscopy here at UCR

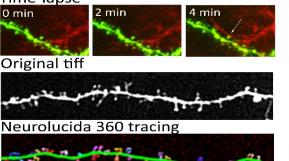
The SOM Research core is making it easier to include multiphoton microscopy in your next study. We are: setting up demos by Nikon and UCR researchers on a 4-6 month schedule, making IACUC protocol templates available, establishing a training video and personnel to assist in training.

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.

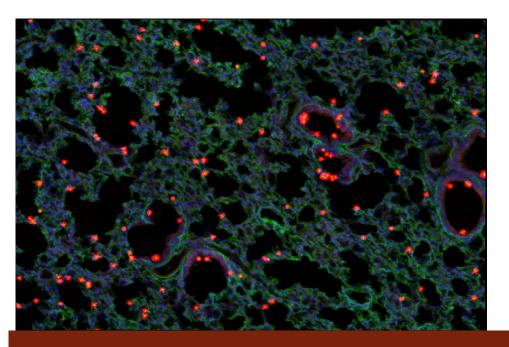
Track of neutrophils showing swarm behavior. Dr D. Lo lab, UCR.

FALL 2020

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#### -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