## **Cell Centered Database**

# University of California, San Diego Maryann Martone

### Microscopy Product #:1003 3wk-both3hm

For the most updated information, please visit

http://ccdb.ucsd.edu/CCDBWebSite/main?event=displaySum&mpid=1003

| Image2D | Reconstruction | Segmentation |
|---------|----------------|--------------|
|         |                |              |

## **Project Information:**

| PROJECT_ID          | P1230  |
|---------------------|--|
| PROJECT_NAME        | Astrocyte Development  |
| PROJECT_DESCRIPTION | Postnatal development of protoplasmic astrocytes   |
| LEADER              | Eric Bushong   |
| FUNDING_AGENCY      | NIH  |
| PROJECT_START_DATE  | 2002-02-01 00:00:00.0  |
| PROJECT_END_DATE    |  |
| COLLABORATORS       | Maryann Martone, Mark Ellisman   |
| PUBLICATION1        | Bushong EA, Martone ME, Ellisman MH. Maturation of astrocyte morphology and the establishment of astrocyte domains during postnatal hippocampal development. Int J Dev Neurosci. 2004 Apr;22(2):73-86. |
| PUBLICATION2        |  |
| PUBLICATION3        |  |

| Experiment Information - |  |
|--------------------------|--|
| PURPOSE                  | Examine the morphology of 3 week old astrocytes    |
| TITLE                    | Morphology of astrocytes in 3 week old hippocampus |
| EXPERIMENTER             | Eric Bushong                                       |
| EXPERIMENT_NAME          |  |
| EXPERIMENT_DATE          |  |

| Subject Information - |                   |
|-----------------------|-------------------|
| GROUP_BY              | NA                |
| SUBJECT_NAME          | NA                |
| FIXATION_METHOD_ID    | 2                 |
| SCIENTIFIC_NAME       | rattus norvegicus |
| SPECIES               | rat               |
| STRAIN                | Sprague Dawley    |
| AGE                   | 3 weeks           |
| AGECLASS              | juvenile          |
| ANIMAL_NAME           |                   |
| LITTER_ID             |                   |
| SEX                   | male              |
| VENDOR                |                   |
| WEIGHT                |                   |

| Tissue -            |              |
|---------------------|--------------|
| ANATOMIC_LOCATION   | hippocampus  |
| MICROTOME           | vibratome    |
| ORIENTATION         | coronal      |
| THICKNESS           | 100 um       |
| TISSUE_PROD_STORAGE | coverslipped |
| EXTERNAL_FILE_NAME  | NA           |
| TISSUE_GROUP_TYPE   | NA           |

| Microscopy Product Information - |  |
|----------------------------------|--|
| MICROSCOPY_PRODUCT_ID            | 1003   |
| IMAGE_BASENAME                   | 3wk-both3hm  |
| CREATE_DATE                      |  |
| INSTRUMENT                       | Biorad Radiance2000                                      |
| MICROSCOPE_TYPE                  | single photon confocal                                   |
| PLANE_COUNT                      |  |
| PRODUCT_TYPE                     | optical section series                                   |
| PURL                             | NA   |
| SESSION_NAME                     |  |
| TELESCIENCE_SRB                  | P1230/Experiment_22/Subject_23/Tissue_30/Microscopy_1003 |
| X_RESOLUTION                     | .030833 pixels/um  |
| Y_RESOLUTION                     | .030833 pixels/um  |
| XSIZE                            | 1024   |
| YSIZE                            | 1024   |

### **Protocol:**

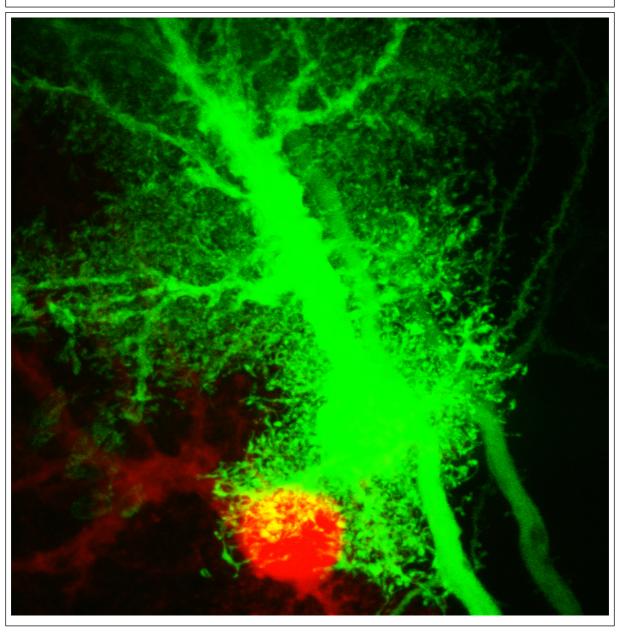
| Image Type -            |       |
|-------------------------|-------|
| THROUGH_FOCUS_SERIES_ID | 1003  |
| OPTICAL_SECTION_SERIES  | 1003  |
| OPTICAL Z RESOLUTION    | .2 um |

| Specimen Description - |                        |
|------------------------|------------------------|
| ANATOMICAL_DETAIL      | 1003                   |
| ATLAS_COORD            | , ,                    |
| CELL_TYPE              | protoplasmic astrocyte |
| ORGAN                  | brain                  |
| REGION                 | hippocampus            |
| SYSTEM                 | central nervous system |

| Light Microscopy Product - |          |
|----------------------------|----------|
| LMPRODUCT_ID               | 1003     |
| COVER_SLIP_THICKNESS       | 1 um     |
| IMMERSION_MEDIUM           | oil      |
| LENS                       | Nikon    |
| LENS_MAGNIFICATION         | 60 x     |
| MOUNTING_MEDIUM            | gelvatol |
| NUMERICAL_APERTURE         | 1.4      |
| REFRACTIVE_INDEX           | 1.5      |

## Reconstruction

### Reconstruction Image -



| Reconstruction -        |  |
|-------------------------|--|
| RECONSTRUCTION3D_ID     | 1003   |
| CROPPING_COORDINATE1    | ,  |
| CROPPING_COORDINATE2    | ,  |
| RECON_TYPE              | optical section series   |
| THUMBNAIL               | P1230/3wk-both3hm_vt.jpg   |
| VOLUME_DIMENSION        | , ,  |
| VOLUME_NAME             | Feb2004E/3wk/both/3wk-both3hm/3wk-both3hm.tar  |
| VOXEL_SCALE             | , ,  |
| RECONSTRUCTION_IMAGES_I | 1003   |
| RECON_IMAGE_DESC        | Optical section series through adjacent protoplasmic astrocytes in rat hippocampal area CA1 intracellulaly injected Lucifer Yellow (green) and Alexa 568 (red) respectively, imaged with confocal microscopy |
| RECON_FILE_NAME         | Feb2004E/3wk/both/3wk-both3hm/3wk-both3hm-proj.jpg   |
| VOLUME_THUMBNAIL        | P1230/3wk-both3hm_vt.jpg   |

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#### **USER NOTIFICATION**

For large size image data, it will take several minutes to download, please be patient. Thanks!

#### **ACKNOWLEDGEMENT**

Data used from the CCDB should be appropriately referenced, including both the author of the data and the CCDB. If the data were from a published study, the reference is included in the database record. The following reference should be cited for the CCDB:

Martone, M. E., Gupta, A., Wong, M., Qian, X., Sosinsky, G., Ludaescher, B., and Ellisman, M. H. A cell centered database for electron tomographic data. J. Struct. Biology 138: 145-155, 2002.

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Maryann Martone