

Cell Centered Database

University of California, San Diego

Maryann Martone

Microscopy Product #:68 1wk-ly4

For the most updated information, please visit

<http://ccdb.ucsd.edu/CCDBWebSite/main?event=displaySum&mpid=68>

| 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 1 week old astrocytes |
| TITLE | Morphology of astrocytes in 1 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 | 1 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 | 68 |
| IMAGE_BASENAME | 1wk-ly4 |
| CREATE_DATE | |
| INSTRUMENT | Biorad Radiance 2000 Confocal |
| MICROSCOPE_TYPE | confocal |
| PLANE_COUNT | |
| PRODUCT_TYPE | optical section series |
| PURL | NA |
| SESSION_NAME | |
| TELESCIENCE_SRB | P1230/Experiment_25/Subject_26/Tissue_32/Microscopy_68 |
| X_RESOLUTION | .053623 um ? ? ? t?b hU ^ r ? ?E# ! >U ? ? t?b U oUN?ea????UN?UN? ? U |
| Y_RESOLUTION | .053623 um ? ? ? t?b hU ^ r ? ?E# ! >U ? ? t?b U oUN?ea????UN?UN? ? U |
| XSIZE | 1024 |
| YSIZE | 1024 |

Protocol:

N/A

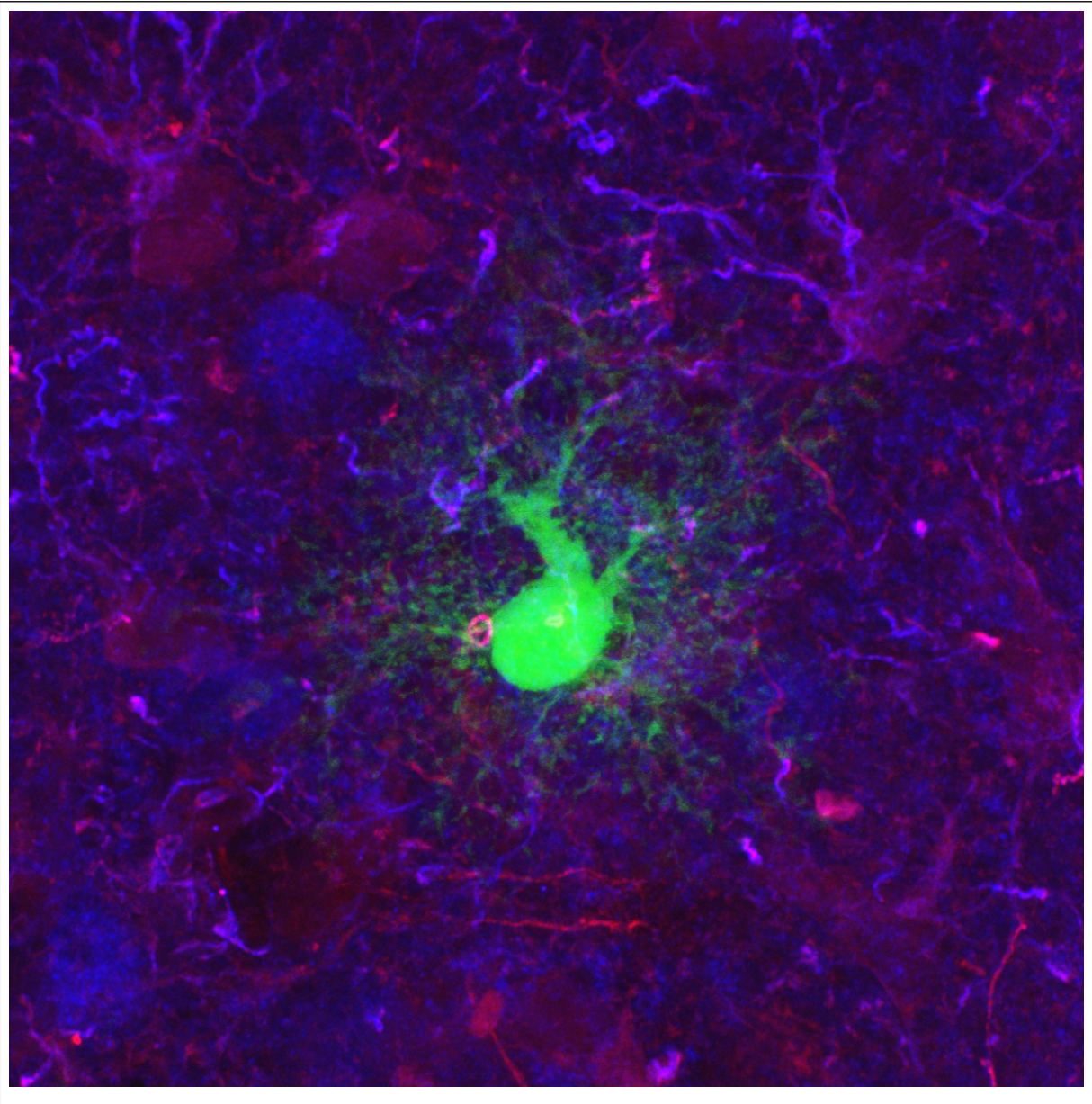
| | |
|-------------------------|-------|
| Image Type - | |
| THROUGH_FOCUS_SERIES_ID | 68 |
| ZSTEP | .25um |
| OPTICAL_SECTION_SERIES | 68 |

| | |
|-------------------------------|------------------------|
| Specimen Description - | |
| ANATOMICAL_DETAIL | 68 |
| ATLAS_COORD | ,, |
| CELL_TYPE | protoplasmic astrocyte |
| ORGAN | brain |
| REGION | hippocampus |
| SYSTEM | central nervous system |

| | |
|-----------------------------------|--|
| Light Microscopy Product - | |
| LMPRODUCT_ID | 68 |
| COVER_SLIP_THICKNESS | 1 umaw(? AUawAU WyuwdU (? ? A Gaw?Paw? ? |
| IMMERSION_MEDIUM | oil |
| LENS | Nikon |
| LENS_MAGNIFICATION | 60 xU ? O?6 dl hU ^ r ?6 ??N ! >U O?6 dl U oUN?ea????UN?UNO?6 U |
| MOUNTING_MEDIUM | gelvatol |
| NUMERICAL_APERTURE | 1.4 |
| REFRACTIVE_INDEX | 1.5 |

Reconstruction

Reconstruction Image -



| Reconstruction - | |
|--------------------------|---|
| RECONSTRUCTION3D_ID | 68 |
| BASENAME_ORIGFILE | NA |
| CROPPING_COORDINATE1 | , |
| CROPPING_COORDINATE2 | , |
| RECON_TYPE | optical section series |
| THUMBNAIL | P1230/1wk-ly4_vt.jpg |
| VOLUME_DIMENSION | , , |
| VOLUME_NAME | Feb2004E/1wk/ly/1wk-ly4/1wk-ly4-proj.tar |
| VOXEL_SCALE | , , |
| RECONSTRUCTION_IMAGES_ID | 68 |
| RECON_IMAGE_DESC | Optical section series through hippocampal astrocyte injected with Lucifer Yellow (green) and immunolabeled with S100 (red) and GFAP (blue) imaged with confocal microscopy |
| RECON_FILE_NAME | Feb2004E/1wk/ly/1wk-ly4/1wk-ly4-proj.jpg |
| VOLUME_THUMBNAIL | P1230/1wk-ly4_vt.jpg |

USER AGREEMENT

Data Sharing and Citation Policy: The mission of the CCDB is to promote data sharing among scientists interested in cellular and subcellular anatomy and in developing computer algorithms for 3D reconstruction and modeling of such data. Data sets may be viewed or shared at the discretion of the author of the data. In some cases, the data may be freely viewed and downloaded without contacting the original author while in other cases, permission of the author may have to be obtained prior to downloading the data. In either case, failure to cite or give proper credit to the original authors who collected these data in subsequent published articles or presentations is a material breach of this User Agreement. CCDB requires all researchers re-analyzing these published data via the CCDB access to reference the original published article and the CCDB. An example of an appropriate acknowledgement is provided on the CCDB web site. CCDB is not in a position to police every intended use of these data. The scientific community will self-police the compliance of this contractual obligation.

DISCLAIMER

THE DATA PROVIDED BY THE CCDB ARE FREELY DISTRIBUTED AND WITHOUT CHARGE. THESE DATA ARE PROVIDED BY THE CCDB "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT, TO ANY THIRD PARTY RIGHTS. IN NO EVENT SHALL THE CCDB BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THESE DATA, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

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.

In addition, the support for the Cell Centered Database should be included in the acknowledgement section of any publication: The Cell Centered Database is supported by NIH grants from NCRR RR04050, RR RR08605 and the Human Brain Project DA016602 from the National Institute on Drug Abuse, the National Institute of Biomedical Imaging and Bioengineering and the National Institute of Mental Health, and NSF grants supporting the National Partnership for Advanced Computational Infrastructure NSF-ASC 97-5249 and MCB-9728338.

Maryann Martone