#### **Cell Centered Database**

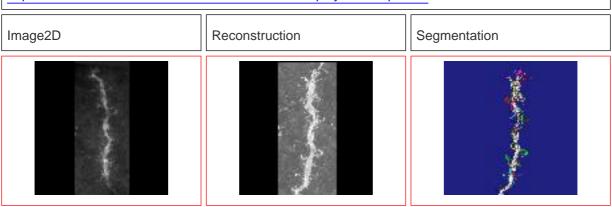
### University of California, San Diego

### maryann@ncmir.ucsd.edu

#### Microscopy Product #:41 datko\_g6

For the most updated information, please visit

http://ccdb.ucsd.edu/CCDBWebSite/main?event=displaySum&mpid=41



## **Project Information:**

PROJECT_ID	P1207
PROJECT_NAME	Correlative microscopic characterization of dendritic spines in a transgenic mouse model of hyperdopaminergia: The dopamine transporter knockout mouse
PROJECT_DESCRIPTION	Multiscale characterization of DAT KO transgenic mouse
LEADER	Diana Price
FUNDING_AGENCY	NIH
PROJECT_START_DATE	2003-01-01 00:00:00.0
PROJECT_END_DATE	
COLLABORATORS	Aki Laakso, Michele Cyr, <u>Maryann Martone</u> , <u>Naoko Yamada</u> , Andrea Thor, Monica Berlanga
PUBLICATION1	
PUBLICATION2	
PUBLICATION3	

Experiment Information -	
PURPOSE	EMT reconstructions of medium spiny neuron dendrites
TITLE	P1207 Experiment 1
EXPERIMENTER	Diana Price, Masako Terada, Andrea Thor
EXPERIMENT_NAME	
EXPERIMENT_DATE	2003-01-09 00:00:00.0

Subject Information -	
GROUP_BY	genetic manipulation
SUBJECT_NAME	Dopamine Transporter (DAT) knockout
FIXATION_METHOD_ID	
SCIENTIFIC_NAME	mus musculus
SPECIES	mouse
STRAIN	C57BL/129SvJ
AGE	6 months
AGECLASS	adult
ANIMAL_NAME	
LITTER_ID	
SEX	male
VENDOR	
WEIGHT	27 grams

Tissue -	
ANATOMIC_LOCATION	neostriatum
MICROTOME	ultramicrotome
ORIENTATION	coronal
THICKNESS	4 um
TISSUE_PROD_STORAGE	P1207 Slide Box 1
EXTERNAL_FILE_NAME	NA
TISSUE_GROUP_TYPE	NA

Microscopy Product Information -	
MICROSCOPY_PRODUCT_ID	41
IMAGE_BASENAME	datko_g6
CREATE_DATE	2004-03-09 00:00:00.0
INSTRUMENT	Hitachi UHVEM
MICROSCOPE_TYPE	UHVEM
PLANE_COUNT	
PRODUCT_TYPE	single axis tilt series
PURL	NA
SESSION_NAME	
TELESCIENCE_SRB	P1207/Experiment_20/Subject_20/Tissue_25/Microscopy_41
X_RESOLUTION	.021 um/pixel
Y_RESOLUTION	.021 um/pixel
XSIZE	1024
YSIZE	1024

#### **Protocol:**

Experiment #1 DAT KO mouse 01/09/03

Description: Photoconverted dye-filled striatal medium spiny neurons for EM

Animal Info: ID# 980

Weight: 27g DOB: 7/8/02 Protocol

1. Perfusion (at Duke)

Nembutal; 4% paraformaldehyde + 0.1% gluteraldehyde

2. Sectioned on Vibratome (at NCMIR)

Thickness = 100 microns Store in 1X PBS in fridge

- 3. Fill cells with Lucifer yellow
- 4. Store slices with filled cells in 4% para in fridge
- 5. Wash 6x with PBS 1X (on ice)
- 6. When ready to begin photoconversion, turn on the chiller in confocal room. Set at ~4?C. The refrigerator unit should be set at TEMP < 45?C. Switch ON. Stage needs around 20 minutes to come to temperature. Pull unit out into hallway (to avoid increase in temperature).
- 6. Place slices in 2% glut/PBS on ice for 15 minutes

0.8 ml 25% gluteraldehyde

2 ml 5x PBS

6.2 ml ddH20

- 7. Briefly wash slices in PBS
- 8. Place slices in PBS/glycine for a few minutes

38 mg glycine

10 ml 1x PBS

- 9. Follow instructions for Photoconversion of Lucifer Yellow-filled cells
- 10. After photoconversion, remove DAB solution and wash slice 3x 10 minutes in generous volumes of PBS on ice. Must remove all DAB before beginning osmification.

Microwaving protocol for osmication, dehydration, and embedding of photoconverted slices

- \* Prepare Resin mix and let it sit covered and undisturbed until needed (instructions by fume hood in embedding area).
- \* Rinse slices with a generous amount of cold 1X PBS on ice for ~ 10 min.
- \* Turn on circulating bath (over 20?C, ~ RT): water bath (left hand side) will fill.
- \* Insert temperature probe
- \* Fill other T-beaker with water
- \* Set temperature to 35?C

* Open new bottle of 100% ethanol and prepare following dilutions:
90% ethanol 70% ethanol 50% ethanol
* Make up osmium solution under fume hood and chill on ice
* 1% osmium tetroxide in PBS on ice.
2.0 ml PBS 5X then 5.5 2x distilled H2O 2.5 ml Osmium 4%
* Rinse w/ 2x distilled H2O ? 3 x 5min
* Warm up microwave for 2 minutes on high
* Label tubes & place in rack on ice
* Fill tubes with osmium solution (w/ meniscus at 0.5)
* Using glass hooks, transfer slices to tubes
* Remove temperature probe & set temp above 50?C.
* Put rack w. tubes in for 40 sec at full power
* Change rear water load in T-beaker
* Change osmium solution on ice and microwave for another 40 seconds at full power
* Rinse samples for 2 minutes in distilled water on benchtop (at RT)
* Insert petri bath with H2O under rack
* Dehydration steps (2 x 40 seconds per step; all @ 35?C)
1st 2nd 50% EtOH
70% EtOH
90% EtOH

100% EtOH

- \* All of the dehydration steps should be carried out in microcentrifuge tubes filled with 600 ml of solution. Temperature probe should be in petri dish and set for 35. Change water in rear water load when warm to touch.
- \* Change from water to acetone in petri bath under rack? check acetone bath level every 3 minutes
- \* Infiltration steps (both @ 50?C):

With a 50/50 mixture of resin and acetone:

- 1 x 15 min
- 1:1 Resin:acetone
- \* Check rear water load at 7.5 minutes

Switch to 100% resin for 3 x 10 minutes:

1st 2nd 3rd 100% Resin

\*Periodically check rear water load

\* Flat embed samples between mould release slides and place in embedding oven under vacuum.

Image Type -	
SINGLE_TILT_IMAGE_SEQ_ID	6118
SINGLET_DESC	Spiny Dendrite Tomo
THROUGH_FOCUS_SERIES_ID	6023
ZSTEP	.54microns
THROUGH_PSFFILE	datkoq
THROUGH_DESC	transmitted light zseries through photoconverted medium spiny dendride
THROUGH_NOTES	datkop and datkoq,both cells injected on same slide
SINGLETILTIMAGESEQ_ID	12
TILT_INCREMENT	2 degrees
RANGE_MAX	66 degrees
RANGE_MIN	-66 degrees

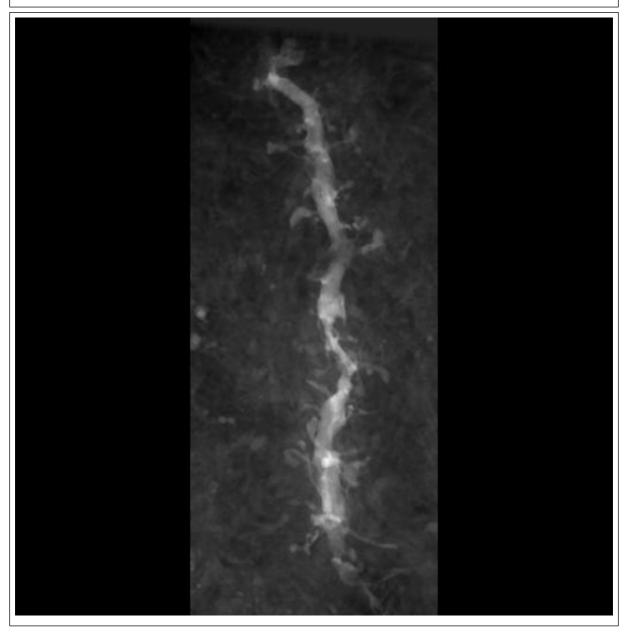
Specimen Description -	
ANATOMICAL_DETAIL	41

Specimen Description -	
ATLAS	Paxinos and Franklin
ATLAS_COORD	1.375, -3.375, .62
CELL_TYPE	medium spiny neuron
MAP_LOCATION	Mar2004DATKOM/DATKOQ_atlasplate26.jpg
ORGAN	brain
REGION	neostriatum
STRUCTURE	spiny dendrite
SYSTEM	central nervous system

Electron Microscopy Product -	
EM_PRODUCT_ID	12
ACCELERATING_VOLTAGE	3 Mev
EMBEDDING_MEDIUM	resin
MAGNIFICATION	3000
RECORDING_MEDIUM	film

# Raw 2D Image

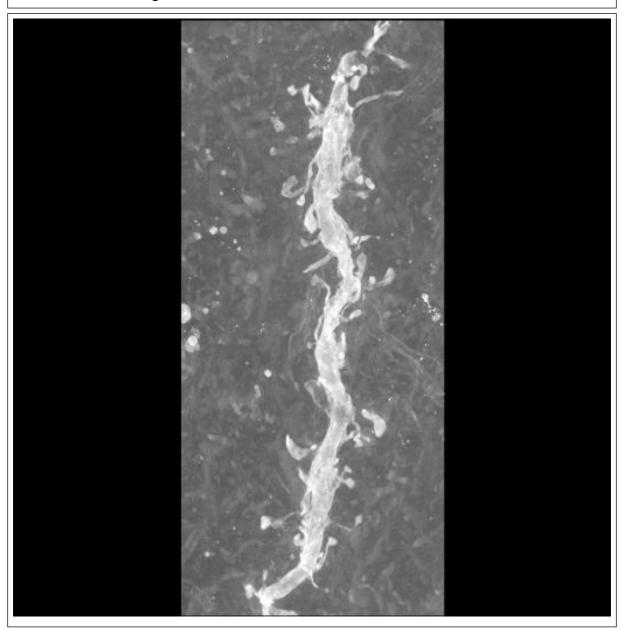
Raw Low Resolution 2D Image -



Raw 2D Image -	
IMAGE2D_ID	6127
IMAGE_DATE	2003-11-24 00:00:00.0
IMAGE_DESC	a .tar file containing processing files for an IMOD volume reconstruction from a tilt series taken on an EM. Specifically, the .ali, .fid, .preali, and the .seed files are all found on in this tar file.
IMAGE_FILE_FORMAT	imod mrc
IMAGE_FILE_NAME	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/datko_g6_img.jpg
MAGNIFICATION	3000 X
RAW_ANIMATION_DESC	a .mpg movie file of the tilt series taken of this spiny dendrite specimen
RAW_ANIMATION_FILE	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/datko_g6_img.mpg
RAW_DATA_FILE	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/datko_g6_image.tar
THUMBNAIL_DESC	a 512 by 512 image of a spiny dendrite specimen
THUMBNAIL_FILE	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/datko_g6_img_thumb.jpg
X_SIZE	424 pixels
Y_SIZE	1024 pixels

# Reconstruction

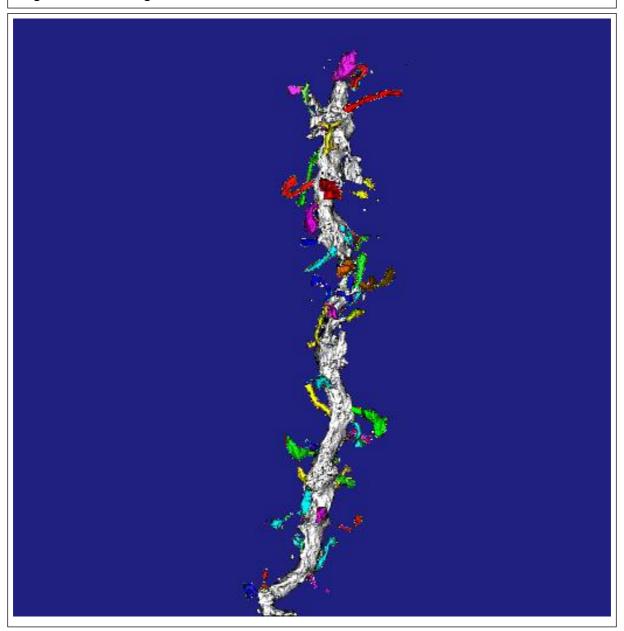
#### Reconstruction Image -



	1
Reconstruction -	
RECONSTRUCTION3D_ID	41
ALIGNMENT_METHOD	semi-automatic
ALIGNMENT_PROGRAM	IMOD
BASENAME_ORIGFILE	NA
CORRELATED_VOLUME_NAME	datko_g6.rec2
CROPPING_COORDINATE1	,
CROPPING_COORDINATE2	,
FIDUCIAL_MARK_FILE	Mar2004DATKOM/DatKo/datko_g6/datko_g6.fid
IMAGE_MAP_FILE	Mar2004DATKOM/DatKo/datko_g6/datko_g6_imagemap.tiff
RECON_ALGORITHM	R-weighted back projection
RECON_DATE	2003-11-24 00:00:00.0
RECON_DESC	Reconstruction of selectively stained spiny dendrite from single axis tilt tomography
RECON_PROGRAM	IMOD
RECON_TYPE	single tilt electron tomography
THUMBNAIL	P1207/datko_g6_vt.jpg
VOLUME_DIMENSION	424, 955, 181
VOLUME_NAME	Mar2004DATKOM/DatKo/datko_g6/datko_g6_vol.tar
VOXEL_SCALE	.021, .021, .021
RECONSTRUCTION_IMAGES_I	41
RECON_IMAGE_DESC	Maximum intensity project of a tomographic reconstruction of a spiny dendrite from a medium spiny neuron of dopamine transporter knock out mouse
RECON_FILE_NAME	Mar2004DATKOM/DatKo/datko_g6/datko_g6_MIP.gif
VOLUME_THUMBNAIL	P1207/datko_g6_vt.jpg
ANIMATION_FILE	Mar2004DATKOM/DatKo/datko_g6/datko_g6_rotmovie.qt
ANIMATION_DESC	maximum intensity projection of selectively stained spiny dendrite rotated along the y axis

# Segmentation

Segmentation Image -



Segmentation -	
SEGMENTED_OBJECT_ID	6544
ANALYSIS_FILE_NAME	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/segmented_object_input_te mplate_datko_g6.xls
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENTED_OBJ_2D_IMAGE	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/datko_g6_seg.jpg
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines
SEG_FILE_NAME	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/datko_g6_seg.tar
THUMBNAIL	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/datko_g6_seg_thumb.jpg

Segmentation -	
SEGMENTED_OBJECT_ID	6549
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6594
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6553
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6561
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6566
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6571
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6576
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6581
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6586
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6590
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	191
OBJECT_DESC	spiny dendrite with individual spines segmented
OBJECT_TYPE	surface
SEGMENTED_OBJ_2D_IMAGE	Mar2004DATKOM/thumbnails/datko_g6_seg.gif
SEGMENT_PERSON_NAME	Masako Terada
SEG_DESC	Spine necks were manually defined using Analyze image edit functions. Segmentation was then performed using morphology and object definition tools provided by Analyze; segmented objects are contained in the Analyze .obj file
SEG_FILE_NAME	Mar2004DATKOM/DatKo/datko_g6/datko_g6_seg.tar

Segmentation -	
SEGMENTED_OBJECT_ID	6545
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6546
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6547
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6548
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6550
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6595
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6596
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6597
ANALYSIS_FILE_NAME	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/segmented_object_input_te mplate_datko_g6.xls
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENTED_OBJ_2D_IMAGE	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/datko_g6_seg.jpg
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines
SEG_FILE_NAME	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/datko_g6_seg.tar
THUMBNAIL	/telescience/home/CCDB_DATA_USER.portal/P1207/Experiment_2 0/Subject_20/Tissue_25/Microscopy_41/datko_g6_seg_thumb.jpg

Segmentation -	
SEGMENTED_OBJECT_ID	6551
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6552
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6573
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6574
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6575
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6577
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6578
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6579
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6580
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6582
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6583
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6584
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6585
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6587
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6554
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6555
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6556
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6588
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6589
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6591
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6557
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6559
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6560
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6592
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6593
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6562
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6563
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6564
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6565
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6567
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6568
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6569
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6570
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6572
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

Segmentation -	
SEGMENTED_OBJECT_ID	6558
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
ANALYZE_DESC	Volume, surface area and lengths for shaft and individual spines.  Partial dendrites are noted with a "p" in their object names.  Subsequently, their measurements are not taken.
DISPLAY_IMAGE_DESC	A 512 by 512 image of the segmentated spiny dendrite shaft and spines.
DOWNLOADABLE_FILE_DESC	A .tar file containing the segmentation files of a spiny dendrite shaft and spines.
IS_MANUAL	N
LABELING_RANK	none
NUMBER_OF_OBJECT	0
SEGMENT_PERSON_NAME	Masako Terada
SEG_ALGORITHM	simple threshold
SEG_DESC	Spiny dendrite shaft and dendritic spines

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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.

In addition, the support for the Cell Centered Database should be included in the acknolwedgement 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