Resources for Bioimage Informatics research program:

1. Journals and conference – these journals are resources for literatures and also are our targeted venue for publications.

* Informatics journals:
* Bioinformatics
* BMC Bioinformatics
* JAMIA
* J. of Biomedical Informatics
* Neuroinformatics
* J. of Clinical Bioinformatics
* J. of Translational Medicine
* PLoS Computational Biology
* Engineering journals:
* IEEE Transactions on Biomedical Imaging
* IEEE Journal of Biomedical and Health Informatics
* Medical Image Analysis
* BMC Medical Imaging
* Computer Methods and Programs in Biomedicine
* Computers in Biology and Medicine
* Biomedical journals:
* Journal of Microscopy
* Cytometry
* Pathology Informatics
* PLoS One
* Histopathology
* Other domain specific ones
* Conferences:
  + MICCAI
  + IEEE ISBI
  + APIII
  + Bioimage Informatics
  + IEEE EMBS
  + CVPR/ICCV/ECCV
* Basic questions regarding the papers:
* What is the biomedical problem?
* What types of data are used/generated/analyzed? Are there any data besides images being incorporated?
* What are main computational/imaging challenges?
* Does the solution require a pipeline? If so, what are the main components?
* What are the algorithmic approaches/solutions?
* Which part of the algorithms or pipeline are novel?
* How did the authors validate/test the algorithms?
* Are there any validation/evaluation datasets?
* What are the parameters and metrics used for validation/test/evaluation (e.g., ROC curves)?
* What are the main biomedical/biological findings?

1. Major research groups in this field – their work set precedence and examples as well as potential solutions for similar problems that we may encounter.

* Robert Murphy and Gustavo Rhode (CMU)
* David Foran (Rutgers)
* Joel Saltz (SUNY Stony Brook)
* Lee Cooper and Jun Kong (Emory U)
* Ross Whitaker and (the Turkish guy in Utah)
* UC Santa Barbara
* Lin Yang (U. Florida)
* Dongmei (May) Wang (Georgia Tech)
* Hanspeter Pfister (Harvard U)
* Hanchuan Peng and Fuhui Long (Allan Brain Institute)
* Stephen Wong (Methodist Hospital, Cornell U)
* Kun Huang and Raghu Machiraju (OSU)
* Braham Parvin (Lawrence Berkeley Laboratory)
* Anne Carpenter (Broad Inst.)
* Yuping Wang (U. Tulane)
* Anant Madabhushi (Case Western Reserve U)
* Badri Roysam (U. Houston)

1. Datasets and software

* TCGA cancer digital slide archive (CDSA, developed by Lee Cooper): <http://cancer.digitalslidearchive.net/>
* Berkeley Cancer Morphometric Data: <https://tcga.lbl.gov/>
* Bob Murphy’s group images: <http://murphylab.web.cmu.edu/data/>
* Human connectome project (HCP): <http://www.humanconnectomeproject.org/data/>
* Allen Brain Atlas (ABA): <http://www.brain-map.org/>
* National Center for Microscopy and Imaging Research: <http://www.cellimagelibrary.org/>
* ICBP cell motility data from Vanderbilt: <http://www.broadinstitute.org/icbp/data/browseData?conversationPropagation=begin>
* LINCS imaging data: <http://www.lincscloud.org/imaging/>
* CellProfiler: <http://www.cellprofiler.org/>

1. Website – for us to update above information as well as information regarding our own projects, progress, ideas, and deadlines