Training, Dissemination, and Administration

Greg Jones
Training

Specific Aims:

- We will deliver training programs for our collaborators and software users based on on-site workshops and off-site workshops, tutorials, short courses, training laboratories, webinars, and seminars.
  - Yearly user and developer workshops on-site in Utah and Boston.

- Encourage direct one-on-one interaction with our collaborators and users through site visits by Center staff to the collaborators' laboratories or visits from collaborators or users to Center sites.

- We will develop short courses or symposia on scientific research topics in conjunction with targeted biomedical or clinical society meetings.

- General training and public awareness: We will seek nontraditional opportunities to educate the general public.

- We will continue to hold the Center seminar series.
Workshop: SCI, CIBC and MRL hosts Summer Course on Image-Based Biomedical Modeling
Jul 10, 2015
Recent Seminars

63 Seminars this year...
17 External Speakers

Dr. Richard Wiggins, Professor (Clinical), Department of Radiology Presents:
Head and neck advanced imaging

Roxana Bujack Presents:
Moment Invariants in Flow Visualization

Dimitri Kusnezov, Chief Scientist, US Department of Energy/NNSA Presents:
The Interface of Prediction
October 2, 2015 at 2:00pm for 1hr
Evans Conference Room, WEB 3760

George Karniadakis, The Charles Pitts Robin John Palmer Barlow Professor of Applied Math, Brown University, Division of Applied Mathematics Presents:
From Stochastic Modeling to Fractional Modeling - New Tools in Large-Scale Simulations
January 30, 2015 at 12:00pm for 1hr
Evans Conference Room, WEB 3760

Training, Dissemination, and Administration
Training, Dissemination, and Administration

- We will continue to modernize and update the Center website... Additionally, we will participate in and support community websites such as the BTRR portal and NITRC. Additionally, the Center will continue to use additional “channels” such as YouTube, vimeo, etc...

- We plan to extend interactive access to Center software distributions by transitioning our code to a repository platform that is more flexible in its ability to interact with outside collaborators and users.

- We propose to continue use of CIBC and CIBC-enabled publications as a means of dissemination of Center research.

- We will continue to use scientific conferences as a dissemination channel to promote Center research and software products.

- Training events such as on-site and off-site workshops and tutorials are an important part of the Training Component of the Center. As the Dissemination Component, we propose to disseminate recorded versions of events...
Current BTRC Resource Dissemination

Google Site

- Center profiles
- Shared calendar
- Over 80 resources currently available

Pro: Easy to use

Con: Hard to find what you want
Future BTRC Resource Dissemination

• Center and resource profiles
Future BTRC Resource Dissemination

• Easy to edit and tag content

Tagged using an interactive ontology
The Exploration Engine

Tag cloud shows keywords from query AND related tags sized by relevance.
Training, Dissemination, and Administration

New Publications 2015-16:


K. Gillette, J.D. Tate, B. Kindall, P. Van Dam, E. Kholmovski, R.S. MacLeod. “Generation of Combined-Modality Tetrahedral Meshes,” In Computing in Cardiology, 2015.


### Dissemination

<table>
<thead>
<tr>
<th>Software</th>
<th>Total downloads (since)</th>
<th>Downloads in 2014-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCIRun</td>
<td>45,290 (since 2004)</td>
<td>590</td>
</tr>
<tr>
<td>Seg3D</td>
<td>41,643 (since 2007)</td>
<td>148</td>
</tr>
<tr>
<td>ImageJ</td>
<td>28,713 (since 2008)</td>
<td>28</td>
</tr>
<tr>
<td>Mobile (App Store)</td>
<td>42,693 (since 2009)</td>
<td>1,898</td>
</tr>
<tr>
<td>MapPlot</td>
<td>8,147 (since 2004)</td>
<td>54</td>
</tr>
<tr>
<td>BioGraph3D</td>
<td>3,970 (since 2009)</td>
<td>271</td>
</tr>
<tr>
<td>Fluochamber</td>
<td>483 (since 2014)</td>
<td>483</td>
</tr>
</tbody>
</table>
Best practices for digitally constructing endocranial casts: examples from birds and their dinosaurian relatives

Amy M. Balensfot, G. S. Bevers, Matthew W. Colbert, Julia A. Clarke, Daniel J. Field, Paul M. Gignac, Daniel T. Knouck, Ryan C. Ridgely, N. Adam Smith, Christopher R. Torres, Stig Walsh, and Lawrence M. Witmer

1Department of Anatomical Sciences, Stony Brook University, Stony Brook, NY, USA
2Department of Anatomy, New York Institute of Technology, College of Osteopathic Medicine, Old Westbury, NY, USA
3Department of Geological Sciences, The University of Texas at Austin, Austin, TX, USA
4Department of Biology, Williams College, Williamstown, MA, USA
5Department of Anatomy and Cell Biology, Oklahoma State University Center for Health Sciences, Tulsa, OK, USA
6Bosch Museum, Cypress, TX, USA
7Department of Anatomical Sciences, Heritage College of Osteopathic Medicine, Ohio University, Athens, OH, USA
8Department of Integrative Biology, University of Texas at Austin, Austin, TX, USA
9Department of Global Archeology, National Museum Scotland, Edinburgh, UK

J. Anat. 2015, 227, 1–13
Training, Dissemination, and Administration

- Dr. Chris Johnson, the Center Director
- Drs. Robert MacLeod and Ross Whitaker, the Center co-Directors
- The Technical Manager will oversee the Center Infrastructure Group
- Administrative staff
- TRD Leadership:
  - Each TRD team, led by a senior faculty member, will have a fully funded or partially funded post-doctoral fellow and graduate student as team members
  - Conduct technical research in advanced image based modeling, simulation, estimation, and visualization methods for biocomputational problems that have wide applicability in experimental, research, and clinical applications in the biomedical sciences.
  - Develop and disseminate state-of-the-art, well-documented software...
  - Train new and experienced users in the software tools developed at the Center and provide research opportunities for undergraduate and graduate students and post-doctoral fellows.
  - Service our collaborators and general software users using the various support mechanisms available to the Center.
Training, Dissemination, and Administration

Organization

- Weekly Center meetings
- The TRDs will conduct their own meetings to discuss specific technical details relevant to the project area.
- Co-Directors and Technical Manager will continue to meet weekly with the Infrastructure Group, regarding software development and dissemination.
- Collaborator contacts: Each DBP has an assigned Center member as the primary contact. The co-Directors and Technical Manager will coordinate collaborator communications and projects.
- Annual External Advisory Board meeting: Each year we will host a meeting of the Resource External Advisory Board with the entire Center staff.

DBP LifeCycle
- Initial discussion
- Evaluation of needs/match
- Preparation of proposal
- Evaluation of the proposal
- Implementation phase
- Evaluation, monitoring, and review
- External funding
Training, Dissemination, and Administration

Greg Jones