2011-06

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Expanding the Reach of the NCIBI Tools Beyond the University of Michigan

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Abstract

With the exponential increase in data, researchers have a fundamental need for resources that can analyze such data. Organizations like the NCIBI (National Center for Integrative Biomedical Informatics) develop powerful and relevant bioinformatics tools to address this need. Connecting researchers with newly available resources, especially beyond the developing organization's home institution is a challenge. The Bioinformationist can confront this issue by introducing the biomedical informatics community to these resources and providing instruction on their use. The University of Michigan Bioinformationist has been involved in several recent events that have expanded the reach of the NCIBI tools: 1) The National Cancer Institute-Frederick's Scientific Library Resource Fair 2) Remote Cytoscape training class 3) Medical Library Association Continuing Education Course. This poster discusses the Bioinformationist's role in these three events and the opportunity that they provided for expanding the reach of NCIBI tools.

Introduction

NCIBI, the National Center for Integrative Biomedical Informatics, is one of seven NCBCs (National Centers for Biomedical Computing) in the NIH (National Institutes of Health) Roadmap. Located at the University of Michigan in Ann Arbor, NCIBI is engaged in developing and implementing powerful, relevant bioinformatics tools for Integrated Biomedical Informatics. Since its founding in 2005, NCIBI has developed a suite of tools (http://portal.ncibi.org/gateway/tryourtools.html), including the MiMI (Michigan Molecular Interactions) database, Gene2MeSH, Metab2MeSH, MetScape, and ConceptGen.

Because NCIBI is physically situated at the University of Michigan, it is convenient and easy to provide outreach and education to the local community. More challenging is to get the resources used and accepted by a broader base of users. A conduit to the biomedical informatics community, the Bioinformationist can introduce these resources and provide instruction on their use. Bioinformationists are "information specialists who have received graduate training and practical experience that provides them with disciplinary background both in biomedical, behavioral or biological sciences and information sciences/informatics" as defined by the National Library of Medicine (NLM).[1]

The University of Michigan Bioinformationist has been involved in several recent events that have expanded the reach of the NCIBI tools:

1. The National Cancer Institute-Frederick's Scientific Library Resource Fair
2. Remote Cytoscape training class
3. Medical Library Association Continuing Education Course

National Cancer Institute (NCI-Frederick) Scientific Library Resource Fair

The Event	The Bioinformationist participated in and gave a twenty minute presentation, covering the MetScape Plugin for Cytoscape, MiMI, Gene2MeSH, ConceptGen, and the NCIBI Web Services at the NCI (National Cancer Institute)-Frederick Scientific Library Resource Fair
The Location	Frederick, Maryland
The Time	March 8, 2011 from 10:00am-3:00pm
The Format	At a table designated for NCIBI, the Bioinformationist provided information about NCIBI resources, was available to answer questions, and supplied handouts on NCIBI tools
The Impact	39 NCI researchers interacted with the Bioinformationist, including a researcher who brought in his own data

This event provided a great opportunity for researchers outside of the University of Michigan to learn about the NCIBI tools. The researchers at NCI-Frederick provide a potential user base for NCIBI; the Bioinformationist attending this event allowed these users to learn about the resources.

Remote Cytoscape Class

The Event	The Bioinformationist taught a Remote Cytoscape class using Adobe Connect. The class included NCIBI's MiMI and MetScape plugins, in addition to several other plugins and the core software
The Location	Ann Arbor, Michigan
The Time	March 18, 2011 from 2:00pm-3:00pm
The Format	Using Adobe Connect, attendees from locations other than Ann Arbor could take the training from a local workstation. Participants were able to ask questions and make comments via text chat.
The Impact	21 people registered for the class and 30 people actually viewed it. The participants were not only from the University of Michigan, but also from North Carolina Central University, Jackson State University, University of Illinois, the National Cancer Institute-Frederick, and Plutonic Research and Knowledge Teams Intl.

This class introduced Cytoscape and its NCIBI plugins to potential users in many locations beyond the University of Michigan.

Medical Library Association CE Course: Network Visualization Tools

The Event	The Bioinformationist and the University of Michigan's Research and Informatics Coordinator at the Taubman Health Sciences Library have developed an MLA (Medical Library Association) CE (Continuing Education) course, focusing on Cytoscape and VisANT.
The Location	To Be Determined (TBD)
The Time	4 hour long course
The Format	In addition to the core Cytoscape and VisANT software products, this hands-on course covers the MiMI plugin for Cytoscape and other plugins and features.
The Impact	Librarians successfully completing this course can receive MLA CE credit. This course informs librarians about Cytoscape and VisANT so that they can suggest and teach these resources to their researchers, thereby expanding the reach of the NCIBI- developed MiMI plugin.

The Bioinformationists felt that it is important for librarians to know about multiple visualization tools, leading to the inclusion of VisANT for this training, in addition to a discussion of criteria to explore when investigating these types of tools for use. This course will expand the reach of these two Bioinformationists, so that their training audience now includes other librarians. The goal of this course is to expand the role of librarians within the field of biomedical informatics, allowing more librarians to provide improved support to their biomedical researchers, thereby further expanding the reach of the NCIBI-developed plugins and resources.

Number of People Attending Each Event

	NCI-F Resource Fair	Remote Cytoscape Class	MLA CE Course
Number of People	39	30	TBD

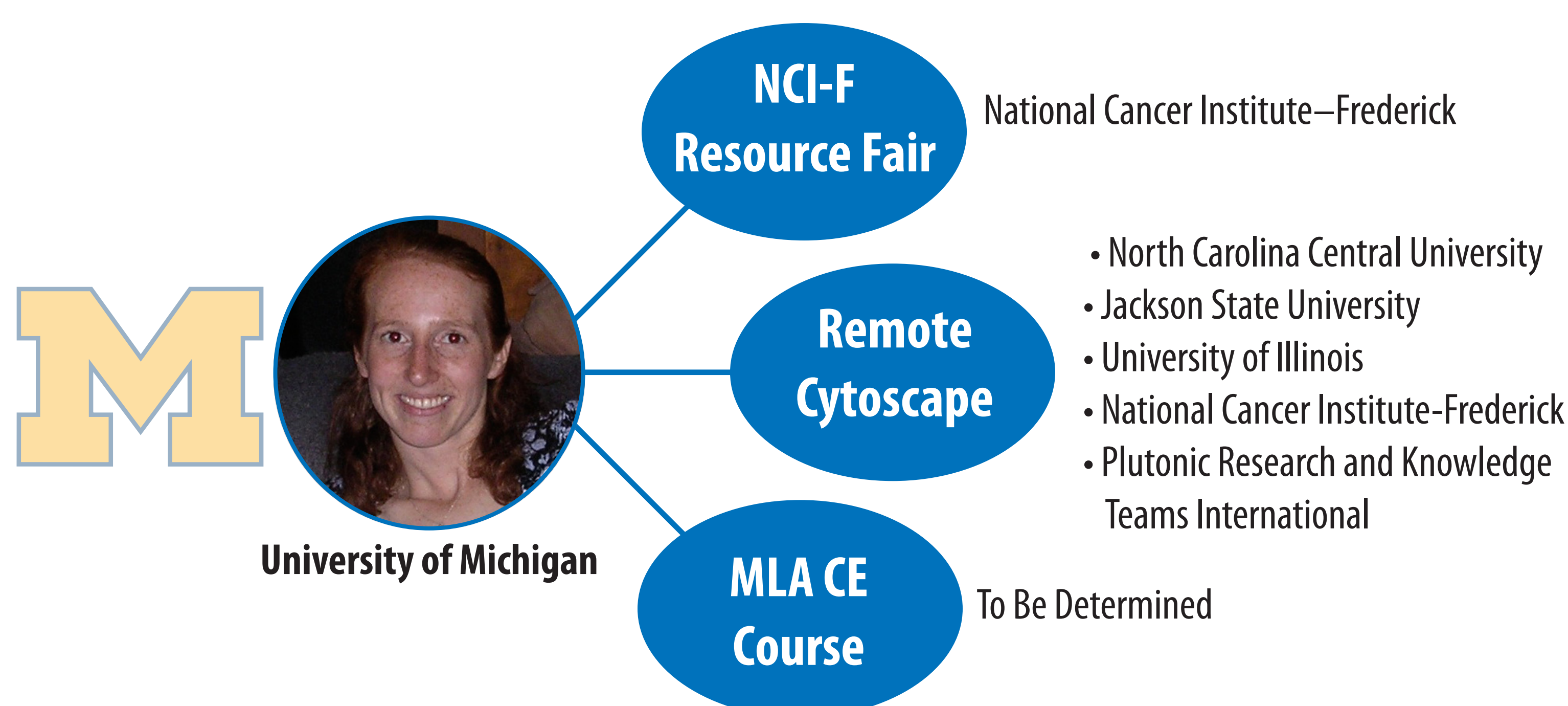The reach of the NCIBI tools, outside the University of Michigan, based on the Bioinformationist's activities.

NCI-F Resource Fair — National Cancer Institute–Frederick

Remote Cytoscape
- North Carolina Central University
- Jackson State University
- University of Illinois
- National Cancer Institute-Frederick
- Plutonic Research and Knowledge Teams International

University of Michigan

MLA CE Course — To Be Determined

Conclusion

Through each of the above events, the NCI-F Scientific Library Resource Fair, the Remote Cytoscape class, and the MLA CE Course, the Bioinformationist increases the reach and impact of the NCIBI tools. As a result of these activities, potential users from many locations outside of the University of Michigan are introduced and trained on NCIBI resources. The Bioinformationist hopes to continue offering and attending events and trainings that will further expand the use of these tools, to ensure that researchers from across the country and world know about these valuable tools.

References

1 NLM Individual Fellowship for Informationist Training (F37) (PAR 06-509).
http://grants.nih.gov/grants/guide/pa-files/PAR-06-509.html

Acknowledgements