

NA-MIC PI Overlap with NAC (P41) and BIRN

(support over 150K direct per year with leadership function)

Management	Algorithms	Engineering	DPB	Service	Training	Dissemination
Kikinis	Grimson	Lorensen	Shenton	Schroeder	Gollub	Pieper
Wong	Tannenbaum	Toga	Saykin			
	Gerig	Ellisman	Potkin			
	Whitaker	Schroeder	Kennedy, J			
	Kennedy, D	Pieper				



NA-MIC, BIRN, NAC

NA-MIC

- National Scope
 - Less than 15% of direct funding stays at BWH
 - Demonstrated by number of investigators working at sites other than BWH
- Commonly available equipment and resources
- Develop infrastructure that is broadly deployable
- Focus on tool and algorithm development (evolving Cores 1 and 2)
- Platform for national effort to develop image computing software engineering framework

BIRN

- National scope
 - Multi-site collaborative clinical research
 - Focus on image calibration, high-speed networking, grid computing, shared databases and large-scale image repositories
- Does not focus on algorithm development
- Platform for NA-MIC

NAC

- Local scope
 - Local BWH expertise
 - Unique BWH environment and infrastructure
 - Custom software
- Develop "pioneering solutions"
- Focus on science questions (DBP collaboration)
- Precursor for some NA-MIC development projects



Research Interactions between NA-MIC, NAC, BIRN



e.g. Provides shared image databases and high speed network being utilized in NA-MIC & NAC

NA-MIC

<u>Focus</u>: algorithms, engineering, general software tools

e.g. Analysis of tensor and non-tensor diffusion data at three algorithm groups (UNC, Utah, MGH), hosted on BIRN servers from three clinical sites (Dartmouth, Harvard, UCI, U of Toronto)

National Level



Data repositories and access

Advances in medical image computing



Requirements, testing, tools

Data

<u>Focus</u>: specific applications, custom software tools

e.g. Focus on tensor analysis for pioneering diffusion sequences available only at BWH





Local Level