EU STRATEGY

Relatively stronger emphasis on data use than data collection

Clinical core

pharmaCOG/E-ADNI (ADNI c.p. Mike Weiner)

MR core

Alzheimer's Assoc.'s EADC-ADNI harm'd protocol for hippo volum. (ADNI c.p. Cliff Jack)

PET core

Head-to-head comparison of FDG PET metrics (ADNI c.p. Bill Jagust, Eric Reiman)

Informatics core

neuGRID for ADNI (ADNI c.p. Art Toga)

PharmaCog E-ADNI
Disease modifying drugs section

WP5

E-ADNI

75 MCI Ab42 pos. and 75 neg.

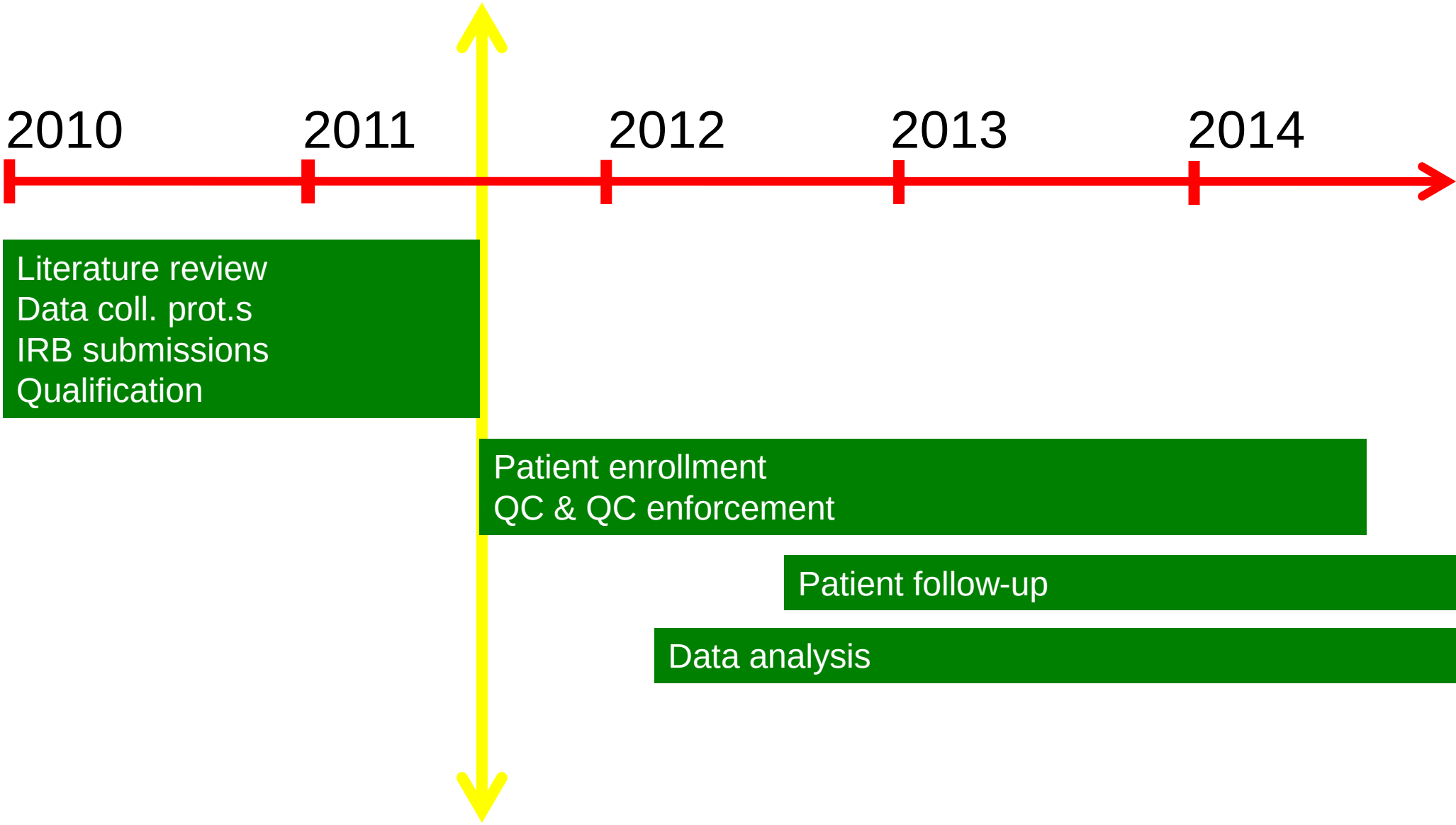
Serial ass.t: 6 mos x 3 yrs
ADNI cogn. tests
ADNI struct 3T MRI
ADNI2 diffusion MRI, rest fMRI
MR spectroscopy
EEG & ERPs
CSF & Blood
Amyloid img (AZ ligand)

WP6

APP, APP/PS1, Tau, APP/Tau/PS2 mouse and lemur monkeys

Serial ass.t: 3 mos x 2 yrs
Homol. cogn. tests
Homol. struct diff func MRI
Homol. MR spectroscopy
Homol. EEG & ERPs
CSF & Blood
Histology

Pharma-Cog: time schedule



Clinical core

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neuGRID for ADNI

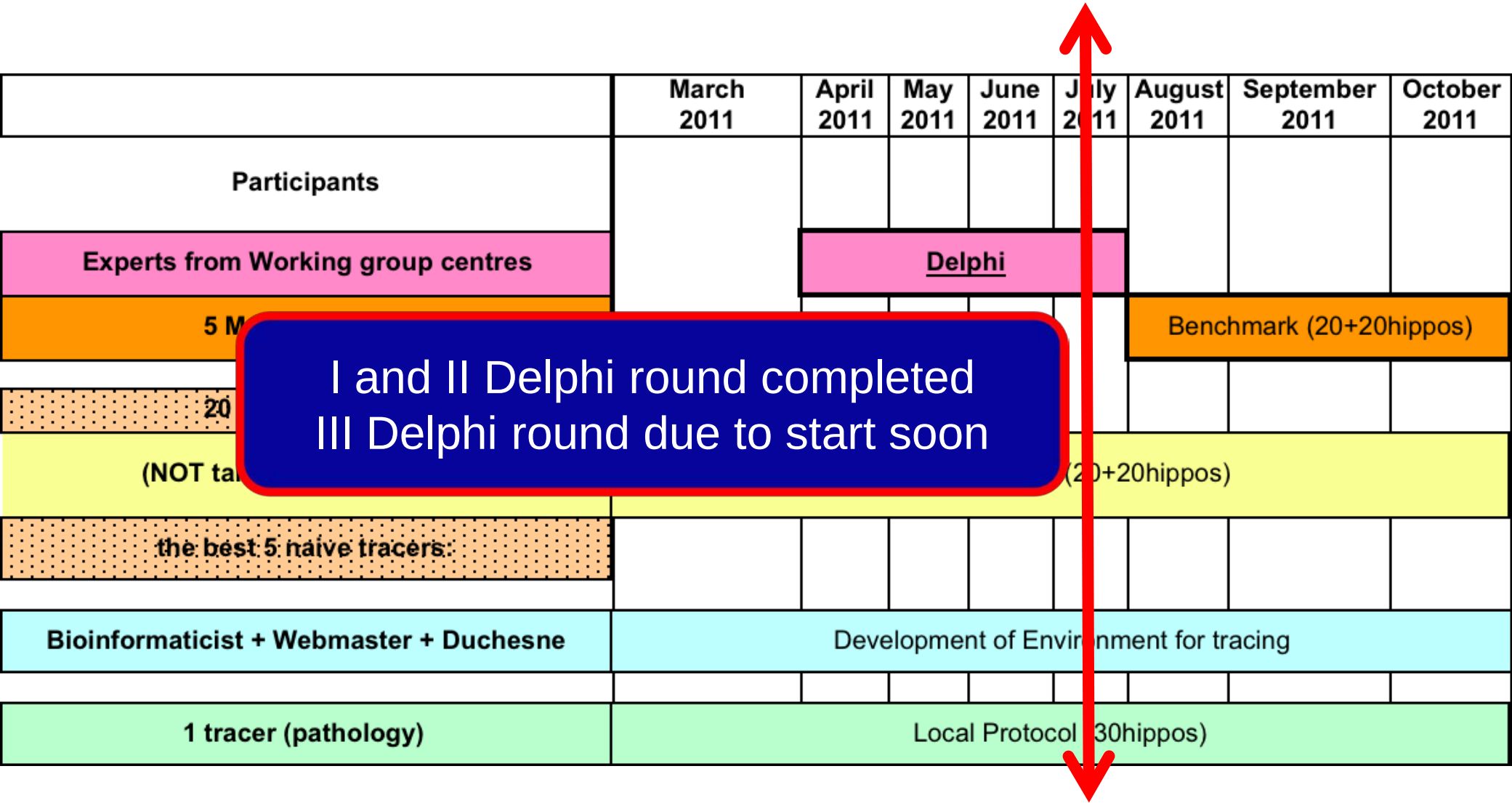
BACKGROUND
The effect of segmentation protocols on hippocampal volume

Ref.	Med border	Lat border	Inf border	Norm. hippo vol (cm^3)	
				Left	Right
Watson et al.	Mesial edge of temporal lobe	Temp horn of lat ventr	Incl subicular complex & uncal cleft w/ border separating subicular complex from	**4.903**	**5.264**
Zipursky et al.	Regional outline at choroidal fissure	Not mentioned	The interface of hippocampal tissue and parahippocampal gyrus white matter	**1.990**	**2.070**

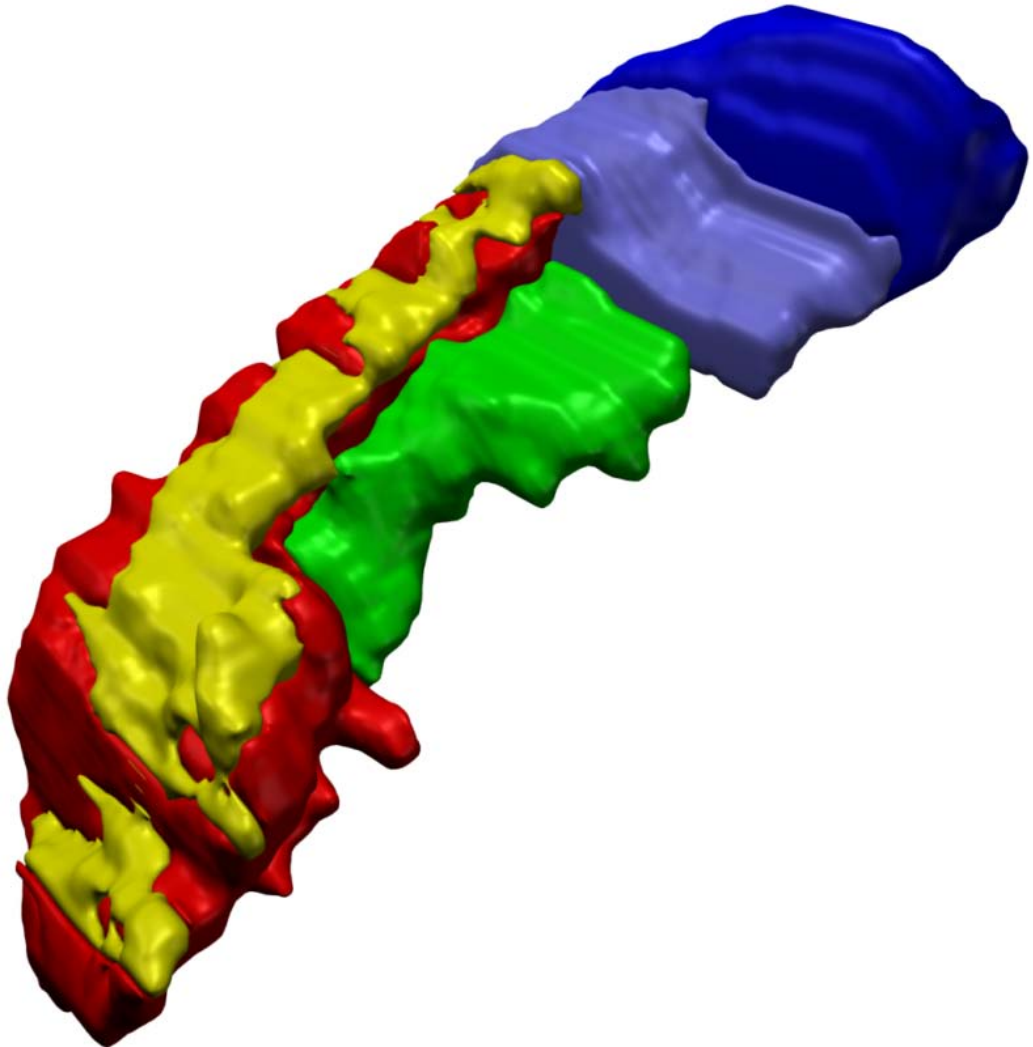
2.5-fold difference

Geuze et al., Mol Psychiatry 2005;10:147-59

Alzheimer's Association's EADC-ADNI harmonized protocol



Alzheimer's Association's
EADC-ADNI harmonized protocol
Provisional Hippocampus at the End of II Delphi Round



Alzheimer's Association's EADC-ADNI harmonized protocol

The Alzheimer's Association would like to invite you to the 4th Hippocampal Protocol Harmonization Meeting during AAICAD 2011. During this meeting, the results of the Delphi panel, consensually defining the harmonized protocol for hippocampal segmentation, will be presented. Data from the validation steps completed up to July, and logistic information regarding the subsequent steps will also be provided.

Date:	Wednesday, July 20, 2011
Time:	12:45-2:30 p.m. local time
Location:	Convention Center Hall 4 Room 900
RSVP:	Meredith.mcneil@alz.org, Please include "Hippo Harmonization" in the subject line

Clinical core

pharmaCOG/E-ADNI

MR core

Alzheimer's Association's EADC-ADNI harm'd protocol for hippo volumetry

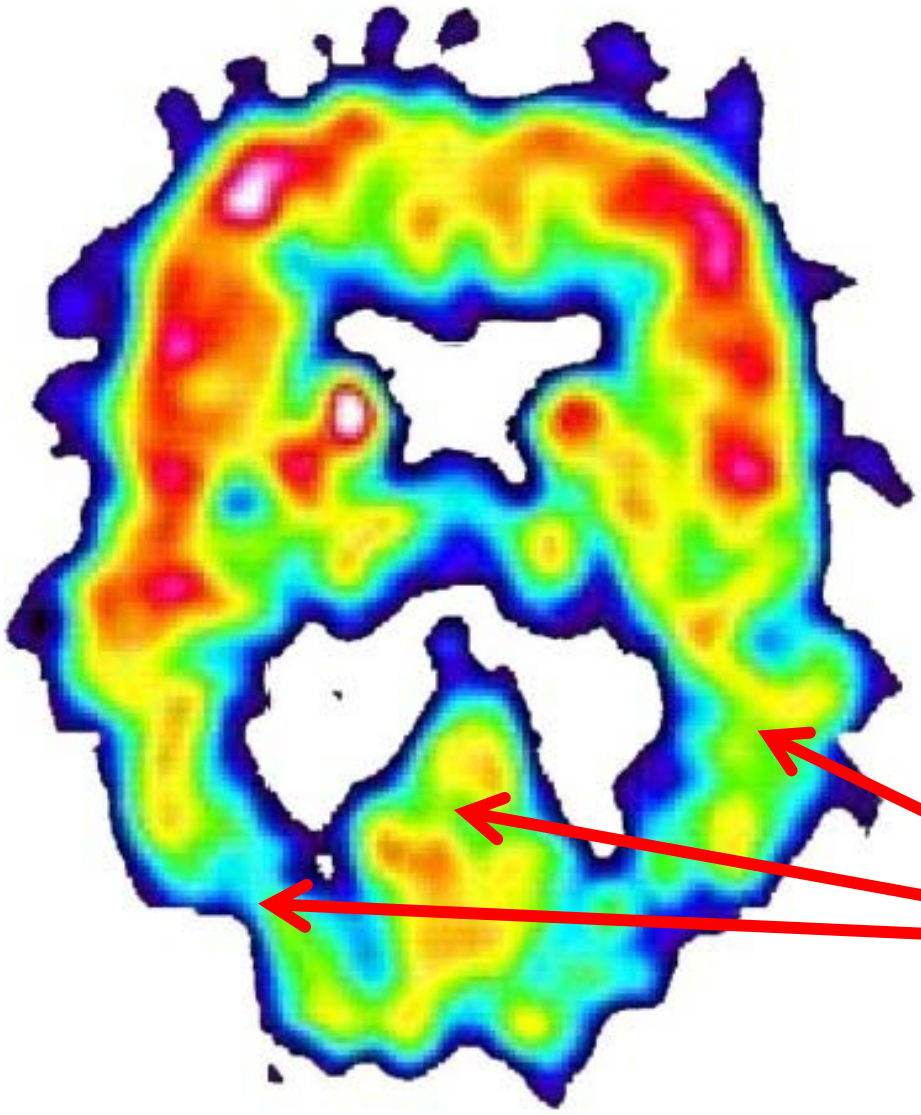
PET core

Head-to-head comparison of FDG PET metrics

Informatics core

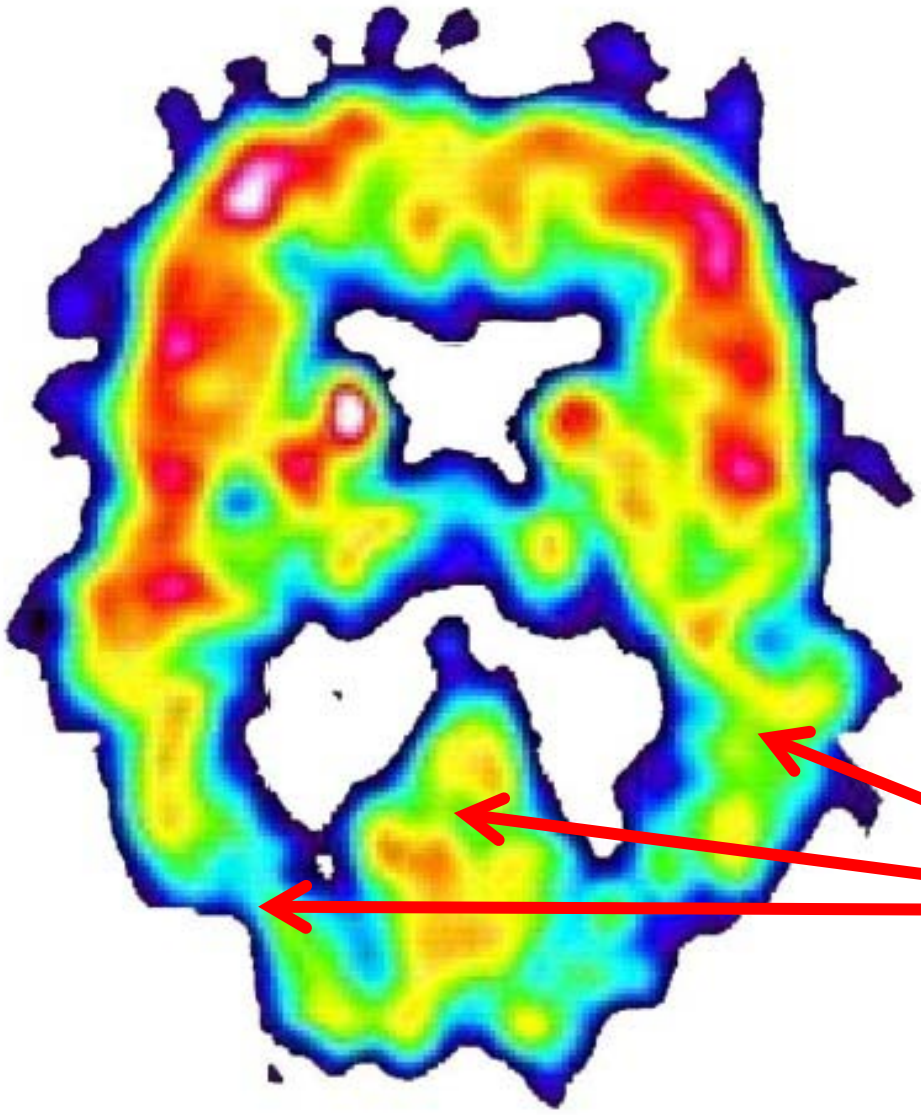
neuGRID for ADNI

Head-to-head comparison of FDG-PET TPH metrics



How to measure this in an unbiased and standardized way?

Head-to-head comparison of FDG-PET TPH metrics



Jagust's metaROI
Reiman's HCI
Herholz's t-sum

Head-to-head comparison of FDG-PET TPH metrics

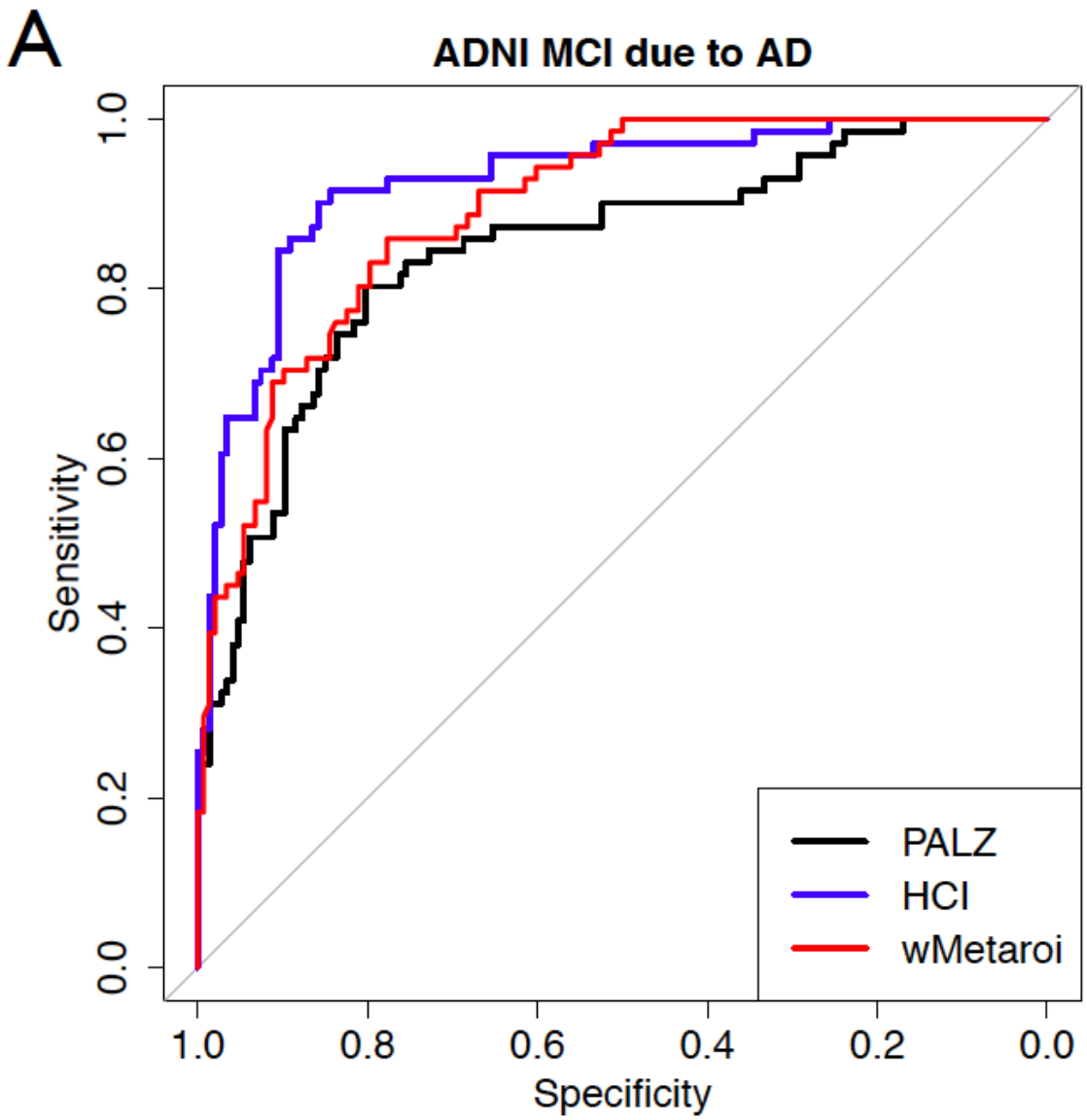
Original scientific article

Summary metrics to assess Alzheimer's disease-related hypometabolic pattern with FDG-PET: head-to-head comparison

A. Caroli*, PhD[1,2], A. Prestia, PsyD[1], K. Chen, PhD[3], N. Ayutyanont, PhD [3], S.M. Landau, PhD[4], C.M. Madison, MS[4], C. Haense, MD[6], K. Herholz, MD[5], F. Nobili, MD[7], E. Reiman, MD[3], W.J. Jagust, MD[4], G.B. Frisoni, MD[1]; EADC-PET Consortium[#], NEST-DD[##] and the Alzheimer's Disease Neuroimaging Initiative[###]

Submitted

Head-to-head comparison of FDG-PET TPH metrics



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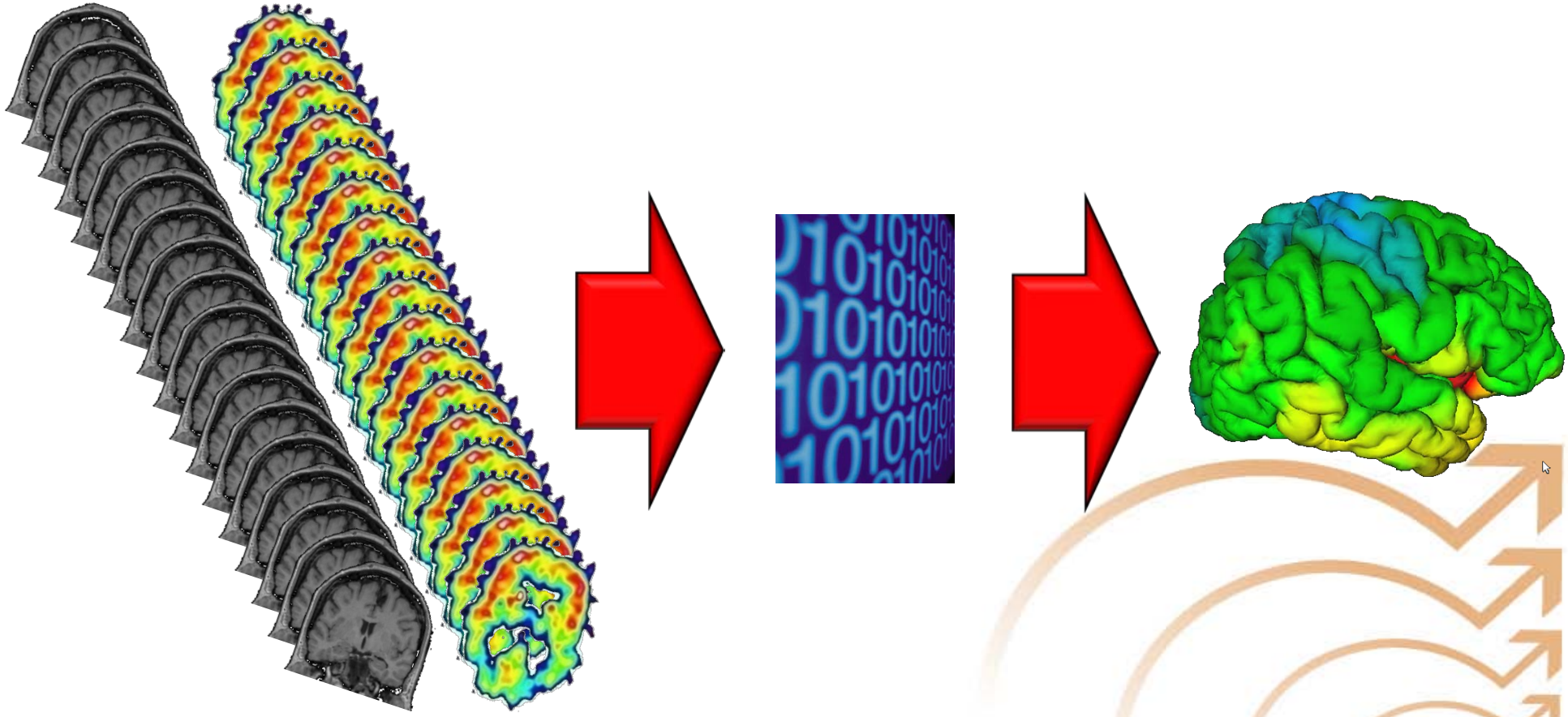
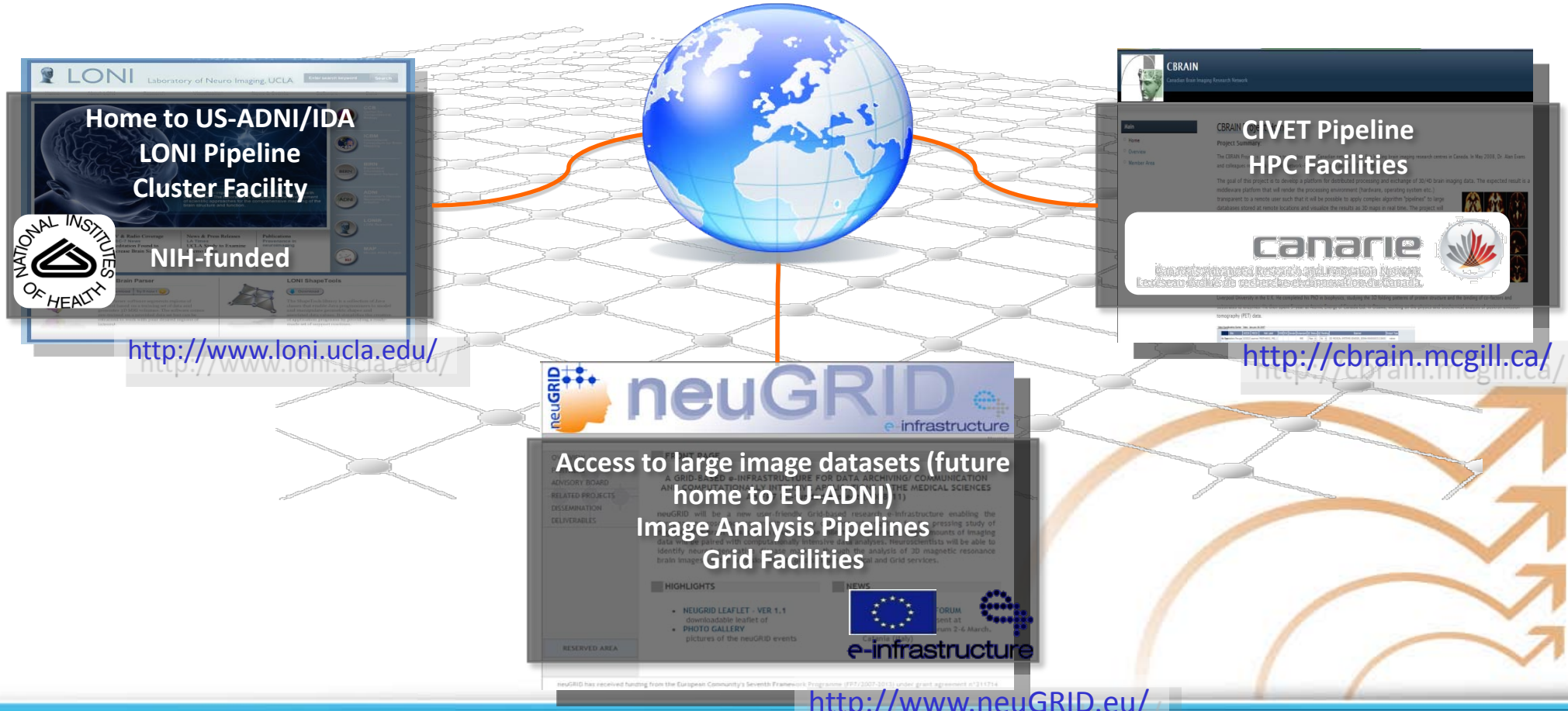
DISEASE MARKERS YESTERDAY AND TODAY:
From ex vivo to in vivo pathology



NA-ADNI, J-ADNI, ANM, … … Algorithms Markers

Worldwide Infrastructure

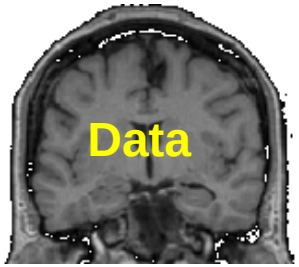
To promote interoperability among three e-infrastructures for computational neuroscience to converge into one unique worldwide facility



e-infrastructure

THE GRAND VISION

A Worldwide Grid/Cloud Based Virtual Imaging Laboratory



1. $(\frac{d^3y}{dx^3})^4 + 2\frac{dy}{dx} = \sin x$

Algorithms

4. $\frac{d^2y}{dx} = 2xy$

THE GRAND VISION

REVIEWS

Virtual imaging laboratories for marker discovery in neurodegenerative diseases

Giovanni B. Frisoni, Alberto Redolfi, David Manset, Marc-Étienne Rousseau, Arthur Toga and Alan C. Evans

NATURE REVIEWS | NEUROLOGY ADVANCE ONLINE PUBLICATION | 1

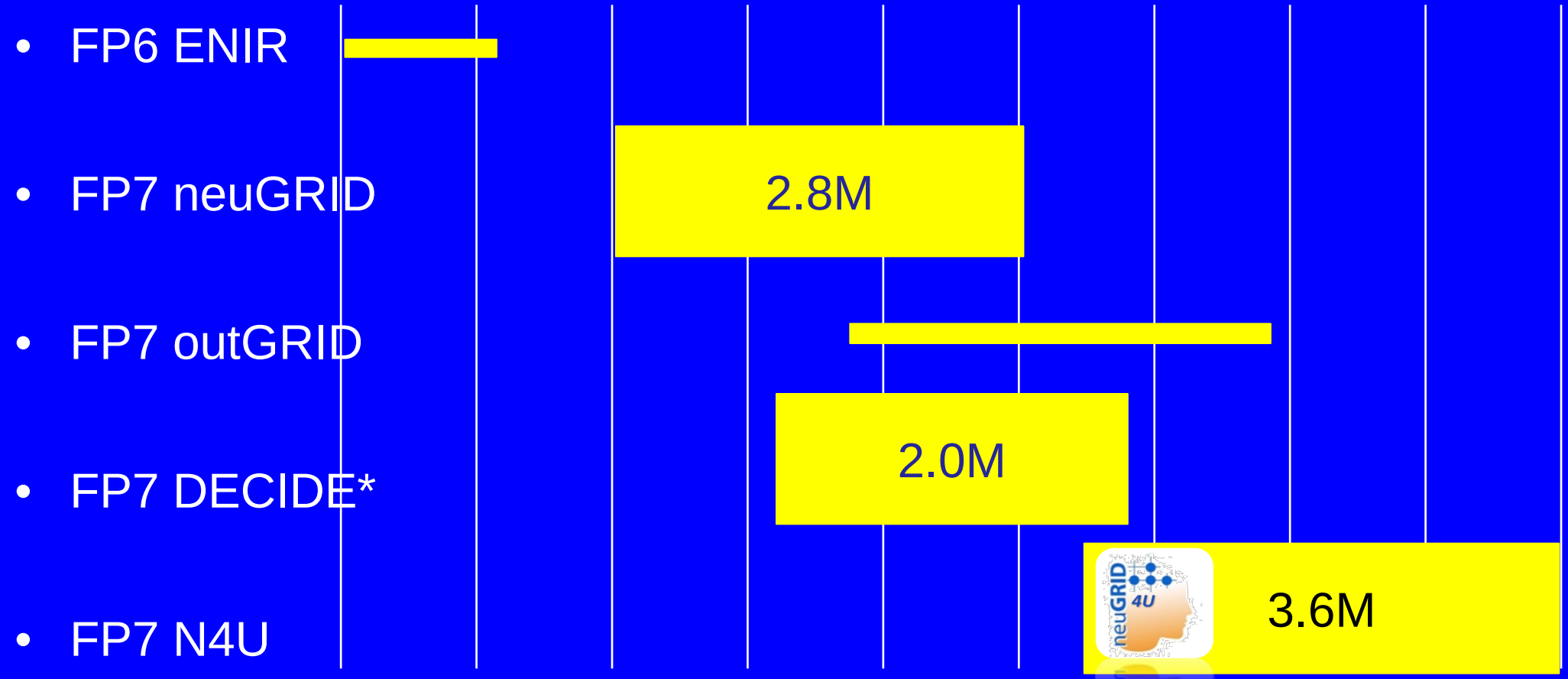
GLOBAL WORKSHOP AT UNITED NATIONS
Geneva, February 2012

How e-Science Can Help to Solve Pressing Societal Challenges:

Fostering A Global Effort to Develop a Worldwide e-Infrastructure for Computational Neuroscientists to Fight Alzheimer's Disease

Geneva, United Nations
Tentative date: Feb 6 to 17, 2012

EU e-Infrastructures for advanced imaging of AD: Funding from DG INFSO



Area is approx proportional to funding

*Scientific coordinator

We invite you to join the discussion of activities of the ISTAART Neuroimaging PIA, including imaging updates as relevant for AD. Please join us Tuesday, July 19, 2011 at the Alzheimer's Association's International Conference on Alzheimer's Disease 2011 in Paris, France for a luncheon meeting at the Convention Center (AAICAD site).

Lunch will be provided

Date: Tuesday, July 19, 2011

Time: 12:45-2:30 p.m. local time

Location: Paris Porte de Versailles Convention & Exhibition Center
Hall 4
Room 900

RSVP : Meredith.mcneil@alz.org, by June 24th
Please include "Neuro PIA" in the subject line