

研究・教育のためのデータ連携のための課題 技術・産業

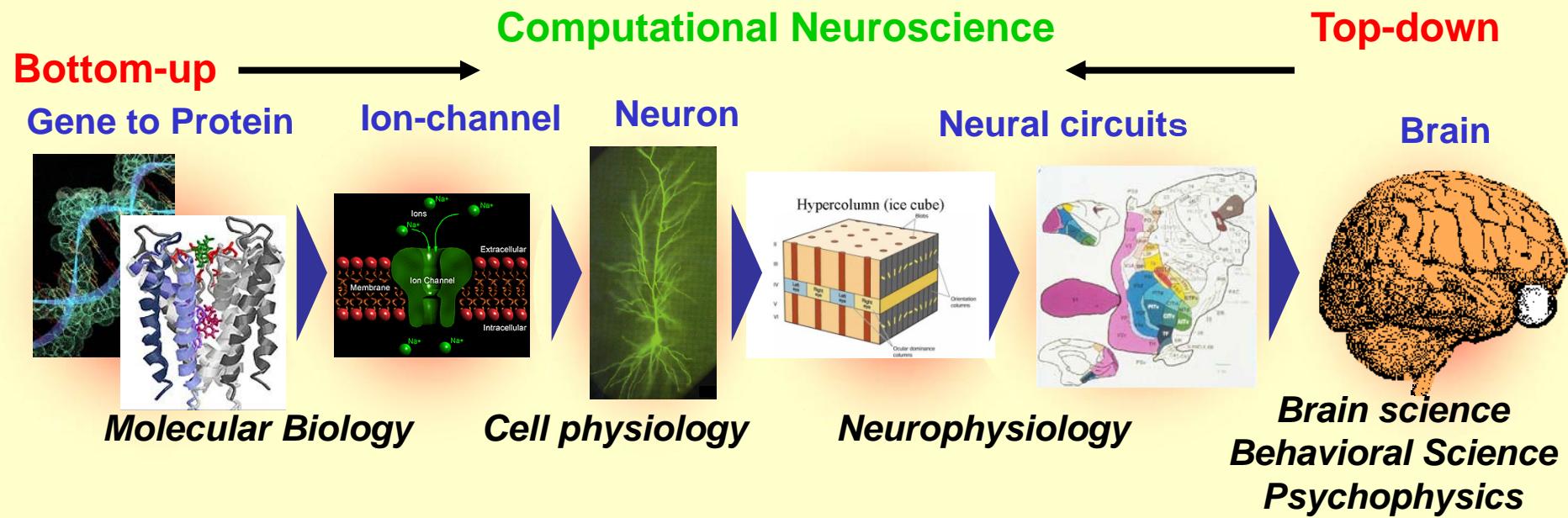
科学データの国際連携の現状 脳情報科学データを中心として

臼井支朗
理化学研究所
脳科学総合研究センター
神経情報基盤センター
usuishi@riken.jp

Understanding the brain as a system

Integration through mathematical modeling approach

Life as a dynamical system can be best described by mathematical models.



Mathematical modeling is a powerful tool to integrate and understand life's complexity from the gene level to higher brain functions !!

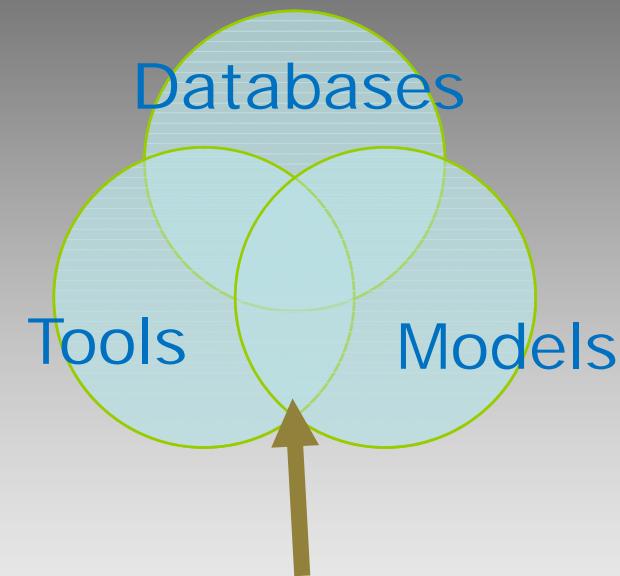
Database of **synthesized** knowledge with what we understood about the system needs to continue to improve, add, apply, .. much better synthesis.

Integration, sharing, succession of our scientific knowledge

INCF International Neuroinformatics Coordinating Facility

Neuroinformatics - an interdisciplinary research area, combining research in neuroscience and informatics (including computation) to **develop and apply advanced tools and approaches needed for understanding the brain.**

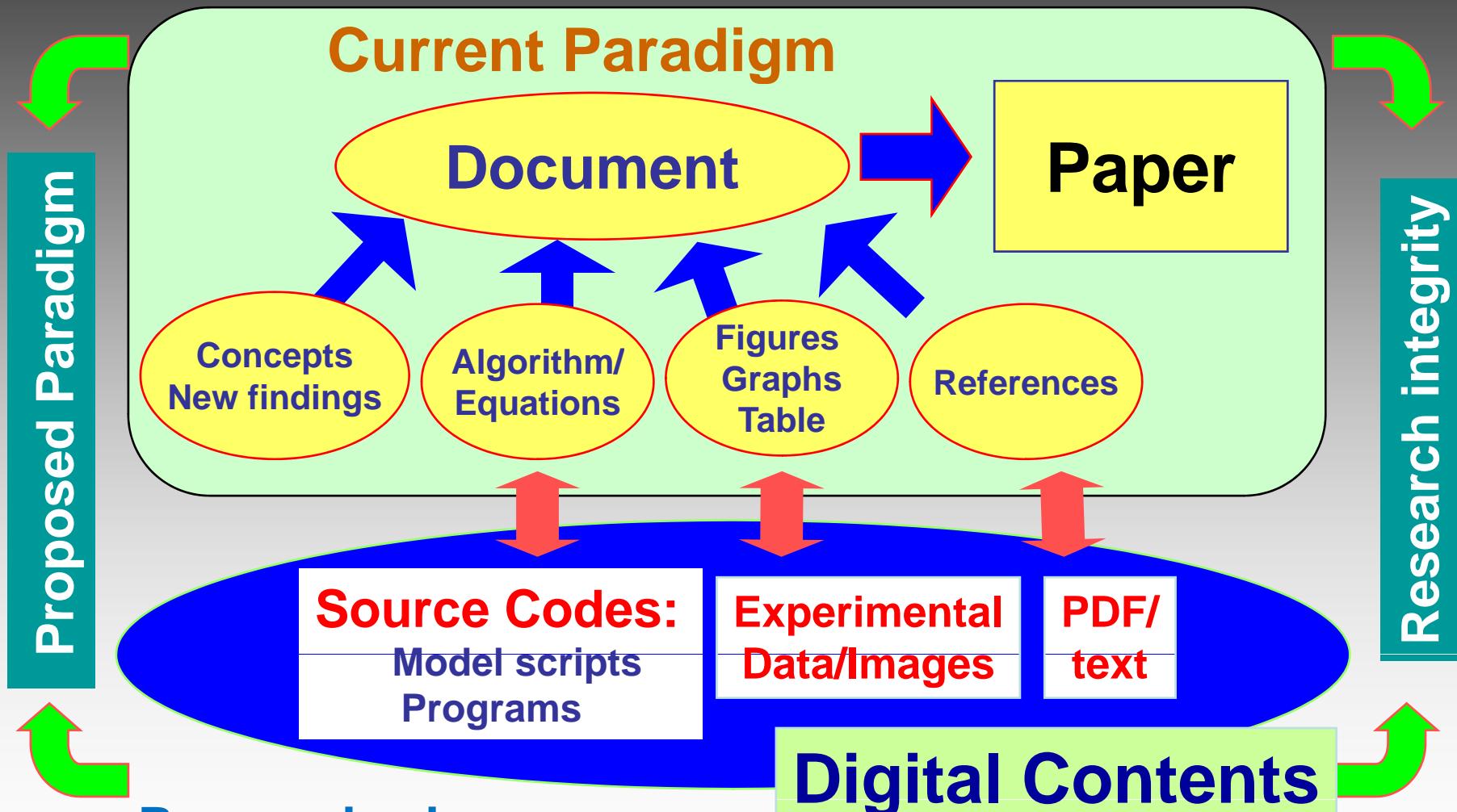
*OECD MegaScience Forum
OECD Global Science Forum*



<http://www.incf.org/>

Paradigm Shift of Publication

Integrated approach to scientific publication



Peer reviewing process

should check these hidden resources!!!



Home Logout My account Contribute Help Contact us



Index Tree

open all close all

Public **Private**

Public(1)
Visual System(137)
Visual Pathway(108)
 Eye(7)
 Eye Optics(8)
 Accommodation(4)
 Pupillary Reflex(14)
 Eye Movement(7)
 VOR(Vestibulo-ocular)(1)
 Saccade(171)
 Smooth Pursuit(15)
 Vergence(2)
Retina(176)
 Photo Pigments(14)
 Fovea(6)
 Photoreceptors(88)
 Rod(68)
 Cone(42)
 Bipolar Cells(120)
 Rod Bipolar Cells(1)

XooNips Search

 ALL

[Show advanced search options.](#)



Model

Model programs/scripts.

[Matlab](#) / [Neuron](#) / [OriginalProgram](#) /
[Satellite](#) / [Genesis](#) / [A-Cell](#) / [Other](#)



Stimulus

Picture, movie and program files for experimental stimuli.

[Picture](#) / [Movie](#) / [Program](#) / [Other](#)



Presentation

Electrical presentation files.

[PowerPoint](#) / [Lotus](#) / [JustSystem](#) /
[HTML](#) / [PDF](#) / [Other](#)



Book



Data

Result data in numerical text/image/movie formats.

[Excel](#) / [Movie](#) / [Text](#) / [Picture](#) / [Other](#)



Tool

Programs/scripts for data analysis.

[Matlab](#) / [Mathematica](#) / [Program](#) / [Other](#)



Paper

Related paper collection.



Url

XooNips User Menu

- [Add New Item](#)
- [User List](#)
- [Group List](#)
- [Notifications](#)
- [Inbox](#)
- [Listing Item](#)
- [Edit Private Tree](#)
- [Logout](#)



RIKEN
Brain Science Institute



Japan-node Scheme <http://www.neuroinf.jp/>

