



Tuesday March 10, 2009
15:30 to 17:00

Lyon Convention Center
France

SEE THE BRAIN, CURE THE BRAIN?

Moderator

- **Gaëll Mainguy**, Director Scientific Publications, Institut Veolia Environnement, France

Speakers

- **Richard Frackowiak**, Professor, Institute of Neurology, University College of London, UK
- **Marc Jeannerod**, Professor, Institut des Sciences Cognitives, France
- **Bernd Montag**, CEO Imaging, Siemens AG, Germany
- **Les Turski**, Senior Vice President Research, Solvay Pharmaceuticals, Belgium
- **Elias Zerhouni**, former Director, National Health Institutes (NIH), USA

Summary

- There are many new possibilities provided with state of the art technology on brain imaging; however there is still a major gap in its wide spread usage.
- Challenges for this wider usage are due to re-imburement, change of habits and education of medical staff as well as staff shortages in hospitals.
- In recent research, brain imaging has provided new insights on how epileptic seizures occur in the brain; this will open the search for more targeted molecules in treating epilepsy.
- In other research, brain imaging indicates how brain activity occurs whether actual or mentally simulated. It is showing how mental training can modify and correct brain activity.
- Brain imaging has opened new ways of approaching neuro-degenerative diseases such as Parkinson or Alzheimer's by visualizing atrophies caused in the brain.
- By detecting in advance the disease, we are opening new ways for early treatment or patient enrolment in clinical trials.
- Ultimately, creating reference databases of brain scans in all of its dimensions will enable to more accurately diagnose neuro-degenerative diseases.
- The impact of CNS and mental health disorders will have heavy impact on disease burden in general and much remains to be discovered in the area.



Capgemini Consulting is the strategy and transformation consulting brand of Capgemini Group

- Capturing the brain's biomarker activity with imaging will require enormous computing capability and also require a fundamental transformation in the way we accumulate and record biological data of the brain.

Quotes

"The new imaging techniques are giving us a dynamic view of what is in the brain"
Richard Frackowiak

"We need to scale up our abilities to study complex and dynamic biological mechanisms in the brain."
Elias Zerhouni

"There is still a long process to go before we all actually benefit from the existing technology"
Bernd Montag

"Imaging is opening new ways to treat epilepsy and the search for more appropriate molecules"
Les Turski