25 October 2011

To whom this may concern,

With this letter I would like to express strong support for the initiative of the Cognomics program to build a large integrated database of multimodal data for 10,000 individuals, including neuroimaging through MRI and MEG, extensive cognitive testing and biological specimen for genetic and cell-based research. This is exactly the foundational data needed to make advances in the field on individual differences in gene-brain-behavior pathways.

The researchers involved in this application are all internationally renowned experts in their fields, and the methods described in the proposal are state-of-the-art and beyond. Continuity of the program beyond the funding period is guaranteed by the strong research institutes involved. With the identification of more and more genes for cognitive function and dysfunction, the characterization of these genes has become an important bottleneck in our understanding of the biological basis of cognition. Knowledge about the underpinnings of our talents and shortcomings is essential for further developing healthy cognitive functions through education, but is also the first step in the development of effective treatment for cognitive dysfunction, a major health problem in our society. The resource proposed by the Cognomics researchers will provide an invaluable tool for studies investigating the biological mechanisms underlying cognition. By making the database available to other researchers, they create maximal value for the Dutch and international research infrastructure. An important asset also is the potential for follow-up studies in the well-characterized cohort, building further on the basis of the existing data, as well as the scalability of the program with the opportunities for further extension, through which other Dutch and international sites may be included in the future. This will make the program an able competitive also for European health research funding.

The Cognomics initiative is extremely timely, and I would strongly advise funding in the current program round.

Yours sincerely,

MRC Research Professor and Centre Deputy Director
27 October 2011

Netherlands Organization for Scientific Research
P/O Box 93138
NL2509 AC Den Haag

To whom it may concern

We are founders of ENIGMA (Enhancing NeurolImaging Genetics through Meta-Analysis), a consortium of over 20 research groups worldwide working on the genetics of brain imaging phenotypes. We would like to express our strong support for the initiative of the Cognomics program to build a large integrated database of multimodal data of 10,000 individuals, including neuroimaging through MRI and MEG, extensive cognitive testing and biological specimens for genetic and cell-based research. The methods described in the proposal are state-of-the-art and beyond. Continuity of the program beyond the funding period is guaranteed by the strong research institutes involved. The researchers involved in the Cognomics program are all renowned experts in the field of neuroscience and have been at the forefront of genetics research in cognitive neuroimaging.

The resource proposed by the Cognomics researchers will provide an invaluable tool for studies investigating the biological mechanisms underlying cognition: while we start to know that many aspects of cognition can be mapped to the human brain, and many of them have a substantial heritable component, there is little knowledge of the individual genes involved. Even more importantly, we still know virtually nothing about the mechanisms underlying the action of genes on the brain and cognition. Knowledge about the underpinnings of our talents and shortcomings is essential for further developing healthy cognitive functions through education, but is also the first step in the development of effective treatments for cognitive dysfunction, a major health problem in our society. Having large resources in place to study cognition genetics will be an essential tool to make progress in this field.

By making the Cognomics database available to others, the researchers create maximal value for the Dutch and international research infrastructure. An important asset also is the potential for follow-up studies in the well-characterized cohort, building further on the basis of the existing data, as well as the scalability of the program with the opportunities for further extension, through which other Dutch and international sites can join the program in the future. This will make the program competitive also for future European research funding.

Sincerely

Nicholas G. Martin, PhD, FAA
Professor and
Senior Principal Research Fellow

Paul M. Thompson, PhD,
Professor of Neurology and Psychiatry
UCLA School of Medicine, Los Angeles
October 25, 2011

Christian Beckmann, PhD
University of Twente and
Donders Institute for Cognition Neuroimaging
Kapittelweg 29
6525 EN Nijmegen

Re: "The Cognomics Database: Towards understanding the genetic architecture of cognition in the healthy brain" application

Christian,

I would like to express my support for the Cognomics program, an initiative to build a large integrated database of multimodal data of 10,000 individuals with MRI, MEG, neurocognitive, genetic and cell-based data. The research team at the Donders Institute and their colleagues is outstanding and includes a number of internationally recognized experts in neuroimaging and genetics. The application itself includes an impressive array of modern analytic strategies and carefully conceptualized biologically valid models. Additionally, the institutional support for this project is outstanding, suggesting that the program will be supported beyond the funding period.

While multiple quantitative trait loci have been localized for brain structure and function phenotypes, the number of true gene identifications has been limited. The need to extend these findings by identifying the exact functional variants that influence cognitive, neuroanatomic and neurophysiological traits is obligatory for gene discovery. Such information is critical for characterizing the neurobiological correlates cognition and subsequently improving our basic of both normal and pathological brain function and structure. I believe that Cognomics database will provide and invaluable resource for gene discovery and characterization that will dramatically improve the standing of the Dutch neurogenomics research community on the international stage. In addition, the development of this database will provide an important resource for conducting replication studies, which are critical for genetics studies and will ensure that the Dutch people are well represented in genomic research and the potential medical beneficaries they allow.

Sincerely,

David Glahn, Ph.D.
Olin Neuropsychiatry Research Center, The Institute Of Living
Associate Professor, Department Of Psychiatry
Yale University School of Medicine
To whom this may concern

With this letter I would like to express strong support for the initiative of the Cognomics program to build a large integrated database of multimodal data of 10,000 individuals, including neuroimaging through MRI and MEG, extensive cognitive testing and biological specimen for genetic and cell-based research. The researchers involved are all internationally renowned experts in their fields, and the methods described in the proposal are state-of-the-art and beyond. Continuity of the program beyond the funding period is guaranteed by the strength of the research institutes involved.

With the identification of more and more genes for cognitive function and dysfunction, the characterization of these genes has become an important bottleneck in our understanding of the biological basis of cognition. Knowledge about the underpinnings of our talents and shortcomings is essential for further developing healthy cognitive functions through education, but is also the first step in the development of effective treatment for cognitive dysfunction, a major health problem in our society. The resource proposed by the Cognomics researchers will provide an invaluable tool for studies investigating the biological mechanisms underlying cognition. By making the database available to other researchers, they create maximal value for the Dutch and international research infrastructure. An important asset also is the potential for follow-up studies in the well-characterized cohort, building further on the basis of the existing data, as well as the scalability of the program with the opportunities for further extension, through which other Dutch and international sites may be included in the future. This will make the program an able competitor also for European health research funding.

The Cognomics initiative is extremely timely, and I would strongly advise funding in the current program round.

Yours faithfully,

Stephen M Smith
MA DPhil CEng MIET
26 October 2011.

To whom this may concern,

I am writing to express my strong support for the initiative of the Cognomics program aiming at building a large integrated database of multimodal data of 10,000 individuals, including neuroimaging through MRI and MEG, extensive cognitive testing and biological specimen for genetic and cell-based research. The researchers involved are all internationally renowned experts in their fields, and the methods described in the proposal are state-of-the-art. The strong research institutes that make up the project guarantee continuity of the program beyond the funding period.

A key interest of mine is the modelling of genetic variation found in imaging phenotypes. While the number of genes discovered for cognitive function and dysfunction is growing, the characterization of these genes has become an important bottleneck in our understanding of the biological basis of cognition. Knowledge about the underpinnings of our talents and shortcomings is essential for further developing healthy cognitive functions through education, but is also the first step in the development of effective treatment for cognitive dysfunction, a major health problem in our society.

Thus I am delighted that the initiative will include sharing data with external researchers like myself, and gives maximum value for Dutch and international researchers. This resource will provide an invaluable tool for studies investigating the biological mechanisms underlying cognition. An important asset also is the potential for follow-up studies in the well-characterized cohort, building further on the basis of the existing data, as well as the scalability of the program with the opportunities for further extension, through which other Dutch and international sites may be included in the future. This will make the program an able competitive also for European health research funding.

The Cognomics initiative is extremely timely, and I would strongly advise funding in the current program round.

Sincerely,

Thomas E. Nichols, PhD

Thomas E. Nichols, PhD
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www.warwick.ac.uk
Conc.: Application, Cognomics Database: Towards Understanding the Genetic Architecture of Cognition in the Healthy Brain

To Whom It May Concern

It is with great pleasure that I write a letter in support of Peter Hagoort’s initiative, “The Cognomics Database: Towards Understanding the Genetic Architecture of Cognition in the Healthy Brain.” In particular, I would like to express strong support for the proposal to build a large integrated database of multimodal imaging data comprising 10,000 individuals, including neuroimaging through MRI and MEG, extensive cognitive testing, and biological specimen for genetic and cell-based research. From my perspective as a developmental researcher, the potential for follow-up studies in a well-characterized cohort is particularly attractive. A related strength of the initiative is its scalability, which will allow other sites – Dutch and international – to join the program in the future.

The resource to be established by the Cognomics researchers will provide a novel and eminently useful tool for investigating the biological mechanisms underlying cognition. At present, many aspects of cognition can be mapped more or less convincingly onto areas and neural circuits in the human brain, and some of these mappings have been found to include a heritable component. However, we continue to know very little about the individual genes involved, and about the mechanisms of gene action on brain and cognition. Having large resources in place to study cognition genetics is pivotal for overcoming this lack of basic understanding. It is likely that genetic effects are highly interactive, especially within the healthy range of functioning, and that present attempts at delineating the mechanisms through which specific genes affect human cognition have only scratched the surface. A massive and well-organized multimodal imaging database is needed to reach beyond these initial attempts. The establishment of the Cognomics Database would do exactly that.
Since 2008, Peter Hagoort and I belong to the Steering Committee of the "Max Planck Research Network on Cognition" (MaxNet Cognition). In this context and in numerous other contexts, including my current function as the Chair of the Human Sciences Section of the Max Planck Society, I have come to experience Peter Hagoort as an excellent and reliable colleague. In my judgment, Peter is one of the leading cognitive neuroscientists worldwide, and one of the few who excels both in scientific creativity and in leadership ability. The MaxNet Cognition network and the Nijmegen Cognomics Initiative have a high potential for synergy, and the presence of Peter Hagoort in both programs would ensure that this potential will be realized. Maxnet Cognition has recently provided funds for building an infrastructure for data sharing, which eventually will lead to an even larger-sized sample than the 10,000 individuals described in the Cognomics proposal. Furthermore, it is likely that the Maxnet Cognition network will serve as a platform for providing continuity to the Cognomics program beyond the NWO funding period.

The researchers involved in the Cognomics program are renowned experts in the field of neuroscience who have been at the forefront of genetics research in cognitive neuroimaging since many years. In fact, they have already built a sizeable sample of 3,000 individuals to date, an effort that has resulted in several important publications. By making the Cognomics database available to the research community, the researchers would create added value for the Dutch and international research infrastructure. This added value will further improve the international standing of the Dutch neurogenomics research community, and render the program competitive for future health research funding at the European level.

To conclude: My evaluation of the group’s application is extremely positive. The Cognomics program is timely and important. I enthusiastically endorse the Cognomics program, and recommend funding with the highest priority. The grant application has my strongest and unconditional support.

Sincerely,

(Ulman Lindenberger)
Rotterdam, October 18, 2011

Letter of Intent

On behalf of the European Population Imaging Infrastructure (EPI²): EuroBioImaging in the Netherlands, I would like to express support for the NWO BIG proposal for a large imaging database "Cognomics: a resource for genetics research of the healthy brain" from the Center for Cognitive Neuroimaging.

The abovementioned proposal is an immensely important initiative for Dutch health research and deserves a place on the NWO BIG Roadmap. EPI² also hopes that the NWO will be able to finance this grant proposal this year. We foresee that the Center for Cognitive Neuroimaging will become influential in European health research policy and advise NWO to proactively place the Netherlands in a central position within this initiative.

We look forward to the progress in healthcare that the Center for Cognitive Neuroimaging will stimulate.

Yours sincerely,

[Signature]

Professor Gabriel P. Krestin
Chairman of the Working Group
European Population Imaging Infrastructure (EPI²)
Radboud Universiteit Nijmegen  
Donders Institute for Brain, Cognition and Behaviour  
Department of Human Genetics (855)  
Dr. B. Franke  
Postbus 9101  
6500 HB Nijmegen

Date:          Contact:          Correspondence nr:
October 27, 2011  Dr. R.P.W. Heinsbroek  2011/02603/NIHC

Subject:  
support for proposal The Cognomics Database

Dear Dr. Franke,

I am pleased to inform you on behalf of the Netherlands National Initiative Brain and Cognition (NIBC) that we have noted the very interesting proposal in the NWO large program by you and representatives from two other universities. The aims of Cognomics nicely fit the NIBC priorities, as well as those of the Netherlands Neuroimaging Network.

With this expression of interest and support we hope to increase the chances for Cognomics to be selected. In that event, we would strongly support maximum involvement of the Dutch science and innovation fields. NIBC could assist in organizing this involvement.

The national research council NWO, in 2009, took the initiative for an NIBC umbrella organization promoting interdisciplinary scientific development and societal and economic innovation on the basis of brain and cognition knowledge. One of the activities of NIBC is the 3N (NNN, Netherlands Neuroimaging Network) initiative, which encompasses top-expertise delegates of Leiden University, Radboud University, Erasmus University Rotterdam, University of Amsterdam, University of Groningen, University of Maastricht, Utrecht University, and VU University of Amsterdam, and associated medical centers. A major goal of 3N is coordinating joint action in the national neuroimaging community to foster the advancement of the national neuroimaging infrastructure and its applications. The Cognomics database proposal fits very well within this 3N ambition.
The NIBC has broad governmental support from the educational, health, justice and public safety fields. The ministries involved put a high value on future opportunities for new brain and cognition insights. The Cognomics initiative would be an important asset in making these future opportunities possible.

Yours sincerely,
On behalf of the Council of the
National Initiative Brain and Cognition,

[Signature]

Prof. dr. J.L. Kenemans
Scientific director NIHC
Dear Sir or Madam,

With this letter I would like to express support for the initiative of the Cognomics program to build a large integrated database of multimodal data. This includes neuroimaging with MRI and MEG, extensive cognitive testing and biological specimen for genetic and cell-based research. The researchers involved are all internationally renowned experts in their fields, and the methods described in the proposal are state-of-the-art and beyond. The strong research institutes guarantee continuity of the program beyond the funding period involved.

An increasing amount of genes is identified to be associated with cognitive function and dysfunction. The characterization of these genes has become an important bottleneck in our understanding of the biological basis of cognition. Knowledge about the underpinnings of our talents and shortcomings is essential for further developing healthy cognitive functions through education. It is also important in the development of effective treatment for cognitive dysfunction, a major health problem in our society.

The resource proposed by the Cognomics researchers will provide an invaluable tool for studies investigating the biological mechanisms underlying cognition. By making the database available to other researchers, they create maximal value for the Dutch and international research infrastructure. An important asset also is the potential for follow-up studies in the well-characterized cohort, building further on the basis of the existing data, as well as the scalability of the program with the opportunities for further extension, through which other Dutch and international sites may be included in the future. This will also make the program competitive for European health research funding.

The Cognomics initiative is extremely timely, and I would advise to fund this program.

Sincerely,

Serge A. Rombouts  
Professor of 'Methods of Cognitive Neuroimaging'  
Director, Leiden Institute for Brain and Cognition

The LIBC is an interfaculty Center for interdisciplinary research on brain and cognition. The Leiden University Medical Center (LUMC) and the Faculties of Humanities, Mathematics & Natural Sciences and Social & Behavioural Sciences of Leiden University participate in the LIBC.
Dear Prof. Hagoort,

It is my pleasure to write a letter in support of the proposal ‘Cognomics’ which will be submitted in response to the ‘NWO Groot’ call of 2011. The Rudolf Magnus Institute of the UMC Utrecht believes it is important to conduct large cohort studies to uncover factors contributing to brain dysfunction and disorders, as well as elucidating the underlying mechanisms. Your proposal to build a database combining cognitive, neuroimaging and genetics data from a large sample of healthy volunteers will, no doubt, contribute to this goal.

Therefore, the institute fully supports your application for funding named ‘Cognomics database: towards understanding the genetic architecture of cognition in the healthy brain’. If granted, the program is very likely to raise a valuable data-source, to be used by national and international partners including our own institute.

Yours sincerely,

Prof. dr. M. Joëls
Director Rudolf Magnus Institute

Prof. P. Hagoort
Donders Center for Cognition
Nijmegen
Dear

By means of this short notice I would like to let you know that KNAW Spinoza Centre for Neuro Imaging supports the proposal regarding cognomics.

Sincerely yours,

Prof. Theo Mulder
Director of Research