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## **SANPSY - Sommeil, addiction et neuropsychiatrie**

Rapport Hcéres

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agence d'évaluation de la recherche  
et de l'enseignement supérieur

Section des Unités de recherche

Rapport de l'AERES sur l'unité :  
SANPSY (Sommeil, Attention et Neuropsychiatrie)  
sous tutelle des établissements et  
organismes :  
Université Bordeaux 2 Victor Segalen  
CNRS

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Le Président  
de l'AERES

Jean-François Dhainaut

Section des unités  
de recherche

Le Directeur

Pierre Glorieux

Mai 2010



## Research Unit

Name of the research unit : Sommeil, Attention et Neuropsychiatrie

Requested label : UMR CNRS

N° in the case of renewal :

Name of the director : Mr Pierre PHILIP

## Members of the review committee

Committee Chairman :

Mr Jean-Marie DANION, Université de Strasbourg

Other committee members :

Ms. Joelle ADRIEN, UPMC, Paris

Mr Michael FARRELL, National Addiction Center, London

Ms. Florence NOBLE, Université René Descartes, Paris

Ms. Maria-Antonia QUERA-SALVA, Hopital Raymond Poincaré, Garches

Committee member suggested by CoNRS :

Ms. Stefania MACCARI

## Observers

AERES scientific advisor :

Mr Jean-Pol TASSIN



# Report

## 1 • Introduction

- Date et execution of the visit :

The visit took place on December 11th 2009, from 9 am to 5 pm. The visit of the platform was followed in the morning by the presentation of past activity and projects of the Joint Service and Research Unit SANPSY and of its 3 teams by Pierre Philip and the 2 team leaders, respectively. In the afternoon, the visiting committee met permanent scientists, PhD students and engineers, technicians and administrative assistants. It met also representatives of the CNRS, Bordeaux 2 University and the academic hospital of Bordeaux, who all expressed their strong interest for the project. The two aspects of the unit, i.e., platform for clinical research and research unit, were assessed, knowing that they are closely related.

- History and geographical localization of the research unit, and brief presentation of its field and scientific activities :

The creation of SANPSY is the expression of the strong interest of the neuroscience community of Bordeaux for basic, clinical and epidemiological research in sleep, alertness, and addiction. This has led to the funding of a platform for clinical research, the first part of which has been opened in 2007 (team 1 of SANPSY) and the remaining parts at the end of 2009. SANPSY is located in a 900 square meter wing of the Tripode Hospital of Bordeaux. It is composed of 3 teams: Team 1 « Groupe d'Etude NeuroPsychopharmacologique du Sommeil et de la Somnolence », Team 2 « Attention, Trouble déficit de l'Attention/Hyperactivité et vieillissement » currently involved in the UMR CNRS 5231 « Imagerie Moléculaire et Fonctionnelle » located in the University Hospital of Bordeaux, and Team 3 « Phénoménologie et déterminants des comportements appétitifs, addictologie et psychiatrie » currently involved in the Research Unit EA 4139 « Laboratoire Santé et Qualité de Vie located in the Charles Perrin Hospital.

As a platform, the main objectives of SANPSY are to host experimental, translational and clinical studies in highly controlled environments, and to develop innovative technological tools based on virtual reality. This platform will be available to the 3 research teams of SANPSY and to units belonging to the Neuroscience community, via collaborative partnerships.

As a research unit, the main objectives of SANPSY are to investigate the links between sleep, fatigue and cognition on one hand, and everyday activities and driving on the other hand. These investigations are carried out in healthy subjects, in normal and pathological ageing and in neurological and psychiatric disorders.

- Management team :

The management of SANPSY is excellent with a team leader playing a critical role in the definition of the scientific policy and the organisation of the research unit. The team leader is assisted by an Operational Committee.



- Research unit staff members

	Past	Project
N1 : Number of researchers with teaching duties (Form 2.1 of the application file) :	2	2
N2 : Number of full time researchers from research organizations (Form 2.3 of the application file) :	2	2
N3 : Number of other researchers with or without teaching duties (Form 2.2 and 2.4 of the application file) :	2	2
N4 : Number engineers, technicians and administrative staff with a tenured position (Form 2.5 of the application file) :	2	2
N4 : Number engineers, technicians and administrative staff on short term contract (Form 2.5 of the application file) :	0	0
N5 : Number engineers, technicians and administrative staff with a tenured position (Form 2.6 of the application file) :	3	3
N6 : Number of Ph.D. students (Form 2.7 of the application file) :	2	1
N7 : Number of staff members with a HDR or a similar grade :	3	3

## 2 • Overall appreciation of the research unit

- Summary of the overall appreciation:

Excellent. The platform of SANPSY is unique in that it undertakes multidisciplinary studies on driving in virtual and real conditions, as well as experimental, translational and clinical studies of physiological functions, cognition and behaviour in controlled conditions. It is likely to play a key strategic role to improve the structure of the neuroscience community of Bordeaux. The neuroscience research community will be offered access to various experimental and clinical expertises, including the investigation of sleep, biological rhythms and cognition, making it possible to complement more basic, clinical and epidemiological research. The research carried out on the influence of sleep, vigilance and cognition on driving in healthy subjects, during normal and pathological ageing and in patients suffering from neurological and psychiatric disorders is of high quality and relevancy and well recognized at the national and international levels. The research makes it possible to identify risk factors and has strong implications in the prevention of road accidents, which is both a public health and social concern. The team leader is very present in public debates on fatigue, drowsiness and driving. The research unit is strongly involved in national and European research networks on driving and has raised funds from numerous public institutes or private companies. The research has also contributed to a better understanding of the phenomenology of addictive behaviours and has led to recommendations to medical practitioners for the treatment of addictions.

- Strengths and opportunities :

The combination within the same unit, in a scientific and medical environment of high quality, of a very well-equipped platform, various experimental and clinical expertises and a research group addressing highly relevant questions is of exceptional strength. SANPSY is likely to play a role of leader in the field of sleep, vigilance and driving at the national and international levels.



- Weaknesses and threats :

The integration of teams 2 and 3 in SANPSY is a strength because the conceptual and methodological expertises developed by these teams to study neurological and psychiatric disorders are highly relevant to the objectives of the whole research group. However, the links between the 3 teams need to be further developed and integrated.

- Recommendations to the head of the research unit :

1. The links between the different scientific components of SANPSY should be reinforced by merging teams 1 and 2. Team 2 is likely to bring to team 1 its expertise in cognitive psychology and neuropsychology of attention and executive functions, which should be highly relevant for developing projects on the mechanisms underlying the influence of sleep, vigilance and cognition on driving. Simultaneously team 2 will benefit of the expertise of team 1 to explore the consequences of ageing and ADHD on sleep and driving. Stronger complementarities should be established between team 3 and the recombined teams 1 and 2.

2. It would be highly relevant to develop projects oriented on sleep disturbances, attention deficits and driving impairments in addiction and psychoactive drug use and ADHD. There needs to be a tight focus on these topics and the researchers should not be distracted in the exploration of psychiatric disorders other than ADHD and addiction, at least in the next few years. A special effort must be done to recruit more post-doc students and high level research scientists.

- Production results :

Overall, the level of publications is good, with publications of team 1 in the main journals of sleep and in more generalist journals such as Neurology, Annals of Internal Medicine, Chest, even though there are some disparities between teams. The research has very good outputs and is supported by grants from national institutes.

(cf. [http://www.aeres-evaluation.fr/IMG/pdf/Criteres\\_Identification\\_Ensgts-Chercheurs.pdf](http://www.aeres-evaluation.fr/IMG/pdf/Criteres_Identification_Ensgts-Chercheurs.pdf))

A1 : Number of lab members active in research among permanent researchers with or without teaching duties (recorded in N1 and N2)	4
A1 : Number of lab members active in research among permanent researchers with or without teaching duties (recorded in N3, N4 and N5)	7
A3 : Ratio of active members in the research unit $[A1/(N1+N2)]$	
A4 : Number of HDR granted	3
A5 : Number of PhD granted	2
A6 : Other relevant item in the field CDD 2+5, number of engineers, technicians and administratives staff on short-term contract (public and private)	7



### 3 • Specific comments

- **Appreciation on the scientific quality and the output:**

The links between sleep, fatigue, and cognition (attention and executive functions) on one hand, and everyday activities and driving on the other hand are investigated in healthy subjects as well as in ageing and neurological and psychiatric disorders. This research is original in several respects. It is multidisciplinary, bringing together specialists in neurology and electrophysiology, cognitive psychology and neuropsychology, psychiatry and addiction. Taking into account both circadian and homeostatic processes, it is conducted with reference to theoretical models of alertness, attention and executive functions, and it uses appropriate experimental paradigms and methodological tools. A strength of the project is the availability of a well-equipped platform to carry out research in highly controlled conditions (rooms for confinement, phototherapy and recording sleep and circadian rhythms, electrophysiology platform for measuring wakefulness, virtual reality, driving simulators and a vehicle equipped to carry real-life driving protocols, making it possible to compare simulated versus real driving performance, biological assays in controlled conditions of light, noise and temperature). This research is of high quality and particularly relevant for the development of counter-measures to improve attention and executive impairments, fatigue and sleepiness during driving and, hence, to prevent road accidents, which are both a public health and social concern. Research on the phenomenology of addictive use and of their determinants has contributed to a better understanding of addictive behaviors.

Overall, the level of publications is good. Papers have been published in the main journals of sleep and in more generalist journals such as *Neurology*, *Annals of Internal Medicine*, *Chest*. Papers have also been published in specialized journals of *Neuropsychology* and in *addiction*.

SANPSY has established close and stable relationships with some basic research groups of the Neurocampus of Bordeaux, with the Pôle de Neurosciences Cliniques and the Center for Clinical Investigations (CIC) of the hospital.

- **Appreciation on the impact, the attractiveness of the research unit and of the quality of its links with international, national and local partners:**

- Excellent

The team leader has been remarkably active in sleep research, in particular as the elected president of the Société Française de Recherche et de Médecine du Sommeil and Team 1 has participated in numerous working groups (Ministry of health, HAS, Afssaps, INRETS and Road Safety Foundation). Team 2 is involved in the working group on Senior Road Safety and Team 3 is involved in different advisory boards on addiction at the regional and national levels (e.g. member of the regional addiction commission (DRASS-ARH); member of the addiction commission (DRAS-DHOS) Ministry of health; member of Working group preparing the 5th DSM). There is regular participation in international congresses and symposia.

Many collaborations have been established with the main national and international groups that are recognized in the field of driving (INRETS, European network: ERANET). The high quality and relevancy of results have allowed SANPSY to initiate numerous collaborations with public institutes for funding research projects and the platform, obtaining a number of outstanding grants (4 ANR grants, 2 Eranet Transport grants, 1 MILDT-Inserm grant, 2 MILDT-DGS grants, 1 CNES-ESA grant, 1 national and 1 regional PHRC, grants from private pharmaceutical companies - UCB, Ipsen, Servier - and insurance companies - MAIF).

The number of students is correct, taking into account the fact that the team is composed of a small number of project investigators. Seven PhD theses and 7 theses in medicine have been defended in the last 4 years, 14 students in master degree have been trained and there is nowadays 1 post-doc student in the unit. However, a special effort must be done to recruit post-doc students in the next years.

Concrete results of the research activity have been obtained in driving (e.g., the recommendation of napping and coffee intake as countermeasures against sleepiness during night-time driving) and addictive behaviours, two





major public health concerns. Team 1 has participated in publishing rules/laws for the driving license, and in campaigns of public information. It is largely recognized at the national level for public recommendations in terms of road security. Research on addiction carried out by Team 3 has led to recommendations to the medical practitioners, and were included in training of professionals with respect to special dispositions concerning addictions, at the health and medico social levels.

- **Appreciation on the strategy, management and life of the research unit:**

SANPSY comprises two complementary aspects, a platform service and a research unit, and their combination within a single unit is of exceptional strength. The strategy consisting in bringing together the 3 teams in a unique research unit is highly valuable because it is likely to create very positive synergic interactions, making it possible the cross-fertilisation of the projects developed by these teams. However, the links between the three teams of SANPSY are insufficiently developed and should be reinforced.

The management of SANPSY is excellent with a team leader playing a crucial role in the definition of the scientific policy and the organisation of the research unit. The team leader will be assisted by an Operational Committee comprising 2 elected researchers, a technician or an engineer and 2 members. Researchers have regular interactions between them, and with the project leaders and the students.

All the senior researchers are involved in teaching at the local level of the Bordeaux University (neurology, psychiatry, addiction) and at the national level (Diplôme Interuniversitaire sur le sommeil et sa pathologie). They also participate to teaching to medical practitioners.

Thanks to its platform and its multidisciplinary expertises, SANPSY is likely to play a very strategic, positive role to better structure the neuroscience community of Bordeaux, which will be offered access to various experimental and clinical expertises, including the investigation of sleep, biological rhythms and cognition in various normal and pathological conditions, making it possible to complement more basic and epidemiological researches.

- **Appreciation of the project :**

The project is highly original, innovative and relevant. It is multidisciplinary, based on a robust scientific background, combining electrophysiological, psychological, neuropsychological, clinical and epidemiological expertise, and on a platform with technological approaches unique in France. The project will also take advantage of the hospital facilities, in particular the clinical ward located a few floors from the platform, which gives an easy access to patients and favours reciprocal interactions between clinicians and researchers. The close relationships with the Center for Clinical Investigations (CIC) of the hospital make it possible to investigate the influence of licit and illicit drugs on driving. All conditions are met to carry out translational and clinical research of high quality.

The scientific aims for the 4 year-term are to investigate the links between sleep, fatigue and cognition on one hand, and everyday activities and driving on the other hand, with special attention given to sleep loss or decreased sleep quality (which is a real concern nowadays), attention, executive functions and developmental factors. These studies will be carried out in healthy subjects (explored in various experimental conditions including sleep deprivation and constant routine protocol), during normal and pathological ageing and in neurological and psychiatric disorders (ADHD). Epidemiological studies will also be carried out using 2 cohorts available in Bordeaux, one on aging, cognition and sleep (Dartigues and Amieva), and one on drugs and accidents (Lagarde and Moore). These studies will be particularly relevant for the identification of risk factors (e.g., cognitive impairments) of unsafe driving and the development of counter-measures to improve attention and executive impairments, fatigue and sleepiness during driving and to improve road security. Research on the phenomenology of addictive use will be pursued with special attention given to the psychopathological and environmental determinants of craving and the influence of treatments on outcome and quality of life. This research will take benefit from the constitution since 1994 of an open, prospective cohort of over 1000 patients suffering from all kinds of addictions. This research will contribute to a better understanding of addictive behaviours. The feasibility of the project is well established as the ongoing research will be a follow up of published outcomes studies on this cohort.

The allocation of resources for this project is highly recommended. The team have excellent communication skills and are exploring areas of major public health relevance of both national and international significance. The team is likely to make significant, and original research contributions in the future and to be important international experts, on their chosen research topics for some time to come. Most of the main projects are already funded.



## 4 • Appreciation team by team

**Team 1 :** Groupe d'Etude Neuro-PsychoPharmacologique du Sommeil et de la somnolence GENPPHASS

**Team leader :** Pierre Philip

- **Summary of the overall appreciation:**

Team 1 addresses the question of the control of vigilance and attention required to perform particular tasks, and notably driving. Special emphasis is put on sleep deprivation and sleep restriction which have become a public health concern in the last years. The studies involve various approaches such as epidemiology, physiology and behavior, clinic and pharmacology.

- **Strengths and opportunities:**

This project is of exceptional strength due to the efforts of the team leader for many years to develop a unique platform that allows studies in "virtual driving" conditions as well as in that of "real driving" on highway. This well recognized expertise in assessing the level of vigilance/sleepiness is fully applicable to the field of clinical research (patients suffering from sleep disorders) and of experimental protocols aiming at investigating the underlying mechanisms. The scientific position of the team at international level and its excellent translational activities at national/regional level give this project high priority.

- **Weaknesses and threats :**

If it were to find some weakness to the project, it would be that no collaboration with teams 2 and 3 has been really conducted up to now. However, the research topics of these collaborations are very relevant and convincing.

- **Appreciation on the scientific quality and the output :**

The past research of Team 1 is recognized internationally because of its high scientific level (taking into account the model of alertness regulation depending on both a circadian and a homeostatic factor), and its originality in terms of application to driving in the general population. The team has notably established the relation between the capacity of wake maintenance and the accident risk.

The level of original publication and reviews is very good knowing that sleep journals do not have a large impact factor. Publications in more generalist journals reach very good impact factors (Neurology, Annals of internal Medicine, Chest).

This research has very good outputs, and is now supported largely by contracts with national institutes such as the national institute of transport and security (INRETS).

- **Appreciation on the impact, the attractiveness of the research unit and of the quality of its links with international, national and local partners**

Team 1 is collaborating with the main international groups that are recognized in the field (European network: ERANET), and publishes original studies and/or reviews on the topic. There is regular participation in international congresses and symposia.



These characteristics are also very good at national level. The team leader is present in every public debate on drowsiness and road accidents. He has been remarkably active in sleep research in general and in particular as the president (elected) of the Société Française de Recherche et de Médecine du Sommeil (SFRMS). (He has notably increased of two-fold the number of participants to the annual meetings, and has considerably promoted young researchers by raising funds for doctorate and post-doctorate fellowships in the field of basic and clinical sleep research).

The team has exceptional abilities to raise funds. The high quality and relevancy of results have allowed the team to initiate numerous collaborations with public institutes or private companies for funding research projects and the platform, obtaining a number of outstanding grants. This has been the case of the INRETS who has also provided a research position, the Ministry of Transport who funded a research network, the Ministry of Research with several ANR grants, and finally diverse funding from drug and insurance companies.

The concrete results and socio-economic relationships are excellent. The team has been for long deeply involved in translational research. It has participated in publishing rules/laws for the driving license, and in campaigns of public information. The team is largely recognized at the national level for public recommendations in terms of road safety. (The scientific work investigating counteractions to sleepiness -nap and/or caffeine- is being explained to the public heading off on vacation on the southbound motorways).

- **Appreciation on the strategy, management and life of the team:**

The team is composed of two senior researchers, the team leader and an engineer, who have been working together for several years, and of a number of young collaborators (administrative, technicians, post-doctorate fellow) who have joined the team recently. These collaborators are hired on grants funding. They are dedicated to their work, have regular interactions between them and with the project leaders (one monthly general meeting of the team). Several of them have benefited from formation (clinical research assistant for example). They also interact actively with students.

The number of students has been good up to now, taking into account the fact that the team is composed of only two project investigators. But this should grow up and develop beautifully with the present project.

The senior researchers are involved in teaching locally at the university, but also excellent participation to teaching at national level (Diplôme InterUniversitaire "Le sommeil et sa pathologie") and in various workshops of "formation continue" for MDs.

- **Appreciation on the project :**

The project is highly original and relevant. It combines epidemiological, physiological and clinical studies, as well as technological approach unique in France. The scientific aim for the 4 year-term is to investigate the relationship between sleep and performance, with special attention given to sleep loss or decreased sleep quality. The factors controlling fatigue, sleepiness and performance, as well as the relation between total sleep deprivation and chronic sleep loss (which is a real concern nowadays) will be studied.

The allocation of resources for this project is excellent, due to the high capacity of the team to communicate and to develop socio-economic relationships notably because of its relevancy in terms of public health.

The project will allow developing translational research to the clinical, pharmacological, and public health fields by taking advantage of the new platform and unique facilities at the hospital. These facilities allow investigations in normal subjects in relation to their sleep debt or their drug consumption as well as in patients with sleep disorders. Indeed, the clinical ward is located just a few floors from the platform which favors interactive research. The facilities include a unique technical setup not only for monitoring while driving, but also for polygraphic sleep recording and biological assays in conditions where all environmental factors can be controlled (light, noise, temperature).

- **Conclusion and recommendations:**

Excellent project which needs more research staff members.



Team 1 has an excellent level of scientific production and translational activity. The project is original and ambitious, and it benefits from a robust background in terms of scientific knowledge, expertise, international and national collaborations and socio-economic relations. The unique platform is an opportunity for diverse and numerous projects that are all interconnected. It will provide essential data for the understanding of physiological basis of vigilance regulation in humans as well as its pathological aspects.

Team 1 lacks at least one project investigator, and should reinforce the research staff: post-docs and young researchers.

## Team 2 : Attention, TDAH et Vieillessement

Team leader : Colette Fabrigoule

- Summary of the overall appreciation:

This team addresses the question of attention and executive functions, their maturation during development and their disturbances during aging. The attention problems are most serious in children and adolescents with developmental disorders such as Attention Deficit Disorder with or without Hyperactivity (ADHD). Special emphasis is put on the relationship between sleep deprivation and sleep restriction and physiopathology of attention. The studies involve various approaches such as epidemiology, physiology and behavior, clinic and pharmacology.

This project is interesting. The team leader is an expert on cognition and aging. However the size of the team is too small and it could be better developed if this team integrates the team 1. This explains the lack of a high scientific output in recent years.

- Appreciation on the scientific quality and the output :

The past research of team 2 is recognized internationally because of its scientific level on cognition, aging and epidemiologist studies. Since 1995, about 50 international papers has been published

The level of original publications and reviews is correct. Publications has been done in journals like J Am Geriatr Soc., Am J Epidemiol, Brain, J Clin Exp Neuropsychol., J Neurosurg., Dement Geriatr Cogn Disord.,.....with good or average impact factors.

- Appreciation on the impact, the attractiveness of the research unit and of the quality of its links with international, national and local partners

Team 2 is collaborating with local, national and international groups and publishes original studies and/or reviews on the topic. In the last 4 years, 3 PhD thesis and 4 medical theses in Psychiatry have been defended. There is regular participation in international congresses and symposia.

The team has abilities to raise funds (i.e., ANR 2009 MNP: PHYTONER). The high quality and relevancy of results have allowed the team to initiate numerous collaborations with public institutes or private companies for funding research projects (i.e., industry UCB Belgium and IPSEN France). Futhermore, this team in line with the rest of the unit has socioeconomic attractiveness concerning information on aging and road safety risks through private insurance companies and Road Foundation and cognitive deficiency in the elderly.

- Appreciation on the strategy, management and life of the team:

The team is composed of two senior researchers, the team leader (DR2) and a PH Psychiatrist, one postdoctoral student and one PhD student. They have regular interactions between them and with the project leaders (one monthly general meeting of the team). The group is too small to develop the project proposed.

- Appreciation on the project :

The project is original and relevant. It combines epidemiological, physiological and clinical studies. The scientific aim for the next 4 years is to investigate the relationship between sleep and attention, executive functions,



their maturation during development and their disturbances during aging. Because the attention problems are most serious in children and adolescents with developmental disorders, they will also be studied in Attention Deficit Disorder with or without Hyperactivity.

- **Conclusion and recommendations:**

Good project. Needs to integrate team 1.

Team 2 has a good level of scientific production and translational activity. The project is original and ambitious, and benefits from a robust background in terms of scientific knowledge, expertise, international and national collaborations and socio-economic relations. The unique platform is an opportunity for diverse and numerous projects that are all interconnected. It will provide essential data for the understanding of physiological basis of vigilance regulation in humans as well as its pathological aspects.

Recommendation: Team 2 needs to integrate team 1 to develop its project.

### Team 3 : Phénoménologie et Déterminants des Comportements

appétitifs, Addictologie et Psychiatrie

Team leader : M. Marc Auriacombe

- **Overall appreciation:**

The scientific activity of the team is good, and there is excellent management structures and motivation of the team. The team has been scientifically productive, but there is room for more significant contributions, in journals with higher impact factors. The projects as currently developed are interesting but not strategically integrated or particularly original. The group needs to develop a more integrated proposal that develops the considerable future research opportunities of the platform, in a more substantial manner than was presented to the assessment team. This should substantially increase the originality of the projects.

The team is well integrated in the regional panorama, and the team leader a good reputation in France and internationally. He is involved in different scientific advisory boards. The management of the team is very positive with involvement of all the staff in scientific discussion and there appears to be a good culture for promoting career development and research skill acquisition of the technical and research staff.

The current fields of research are highly competitive in the world, and the size of the team is relatively modest. The international reputation and attractiveness seems modest. The proposed exploitation by the team of the platform facilities in the USR is too low and requires expansion.

Integration of the team in the USR SANPSY project should be strongest. The research projects should be more oriented towards the projects developed by the two other teams involved in SANPSY. They should use the platform facilities, developing project more deeply oriented on aspects of sleep research relevant to addictions and also on addictions and driving and the interaction between sleep issues and psychoactive drug use and driving for example. These orientations will give a real originality to the team, in a field that is ripe for investigation, and is given very limited coverage by the other sleep and driving research laboratories.

- **Scientific quality and output:**

The projects developed the last 4 years led to interesting results regarding factors associated with consumption in subjects addicted to substances (either hedonic motivation or self-therapeutic motivation), and relapses (correlation between risks of relapse and psycho-physiologic responses and cortisol levels). Another project investigated the treatment outcomes in addicted patients and the quality of life. This is a substantial long term project that may deliver major findings in due course. Moreover, this team has contributed to the study of the validity and reliability of a french version of the Addiction Severity Index (ASI), which provides a multidimensional assessment



of addictive behaviors with or without substances (eating disorders, pathological gambling). This study is important for clinicians to have a standardized treatment outcome assessment instrument.

The scientific production of the team is moderately good for the size of the team. They have published 12 papers in specialized journals in Addiction (clinic), 3 PhD dissertation were defended, and they have presented their results in different international meeting (e.g. College on Problems of drug Dependence).

The team has obtained 6 public research contracts (MILDT-INSERM, MILDT-DGS, PHRC national, Région Aquitaine). The obtaining of regional grants, indicates that the research activity is well integrated in the scientific priority of the region.

- **Impact, attractiveness of the research unit and quality of its links with partners :**

The team is involved in different advisory boards at the regional and national levels (e.g. member of the regional addiction commission (DRASS-ARH); member of the addiction commission (DRAS-DHOS) Ministry of health; member of Working group preparing the 5th DSM), demonstrating the good standing of the team in the field of addictions and their national and international peers.

The team is relatively small, but is regularly involved in the formation of PhD students. 3 University thesis have been defended in the last 4 years, and one thesis is currently in progress in the team. 5 students in Master in Neuropsychopharmacology and Addiction have been trained. There is room for considerable improvement in the number of international researchers recruited to work with the team.

The team regularly raises funds, either as principal investigator, or through collaborations. They have active national and international (UK, Italy, USA, Belgium) collaborations.

The results obtained led to recommendations to medical practitioners, and were included in training of professionals with respect to special approaches concerning addictions, at the health and medico social levels. The results obtained by the team on the phenomenology of addictive use and of their determinants have contributed to a better understanding of some addictive behaviors. The team is participating to the consensus conferences of the National Health Authority (HAS), and to the information campaigns by INPES.

- **Appreciation on the strategy, management and life of the team:**

The management of the team is excellent, with a general policy which allows the promotion of technical staff. All the staff appear to be involved in the publication of the scientific results. Team meetings are regularly organized (once per week), with open discussions regarding the progresses of the scientific results.

The team is largely involved in teaching activities at the University of Bordeaux (DESC addiction, certificate in addiction, DU addiction to substances and addictive behaviours, DU psychiatry for non psychiatrists, etc.). They are also involved in continuous professional development on addictions and their treatments for general practitioners.

- **Appreciation on the project :**

The projects will be divided in 3 main axes: 1) development and validation of assessment tolls; 2) assessment of the role of craving in relapse and its articulation with some risk factors (e.g. in daily life); 3) treatment outcomes and quality of life. These projects are in the line of those developed in the last 4 years. As results have already been obtained, the faisability should be good.

Several financial contracts to conduct the main axes proposed in the project are already obtained.

Multidisciplinary approaches will be used: clinical neurobiology, epidemiology, psychology and sociology, allowing to develop studies with a certain part of originality, However, it should be noticed that the international competition in these fields of investigation is relatively high, and the size of the team modest.



Note de l'unité	Qualité scientifique et production	Rayonnement et attractivité, intégration dans l'environnement	Stratégie, gouvernance et vie du laboratoire	Appréciation du projet
A	A	A	A	A

Nom de l'équipe : Groupe d'Etude Neuro-PsychoPharmacologique du Sommeil et de la somnolence - GENPPHASS

Note de l'équipe	Qualité scientifique et production	Rayonnement et attractivité, intégration dans l'environnement	Stratégie, gouvernance et vie du laboratoire	Appréciation du projet
A+	A	A+	A+	A+

Nom de l'équipe : Attention, TDAH et Vieillesse

Note de l'équipe	Qualité scientifique et production	Rayonnement et attractivité, intégration dans l'environnement	Stratégie, gouvernance et vie du laboratoire	Appréciation du projet
B	B	B	A	B

Nom de l'équipe : Phénoménologie et Déterminants des Comportements appétitifs, Addictologie et Psychiatrie

Note de l'équipe	Qualité scientifique et production	Rayonnement et attractivité, intégration dans l'environnement	Stratégie, gouvernance et vie du laboratoire	Appréciation du projet
A	B	A	A	A



Monsieur Pierre GLORIEUX  
Directeur de la section Unités de recherche  
AERES

Bordeaux, le 19 mars 2010

Monsieur le Directeur,

Je vous transmets les observations de Monsieur Pierre PHILIP, Porteur du projet d'Unité « Sommeil, Attention et Neuropsychiatrie », faisant suite au rapport du Comité de visite de l'AERES.

Je vous prie de croire, Monsieur le Directeur, à l'assurance de mes sincères salutations.

Le Vice-Président du Conseil Scientifique,

A handwritten signature in black ink, appearing to read 'A. Blanchard', is positioned below the typed name.

Alain BLANCHARD





# GRUPE D'ETUDE NEUROPSYCHOPHARMACOLOGIQUE SUR LE SOMMEIL ET LA SOMNOLENCE

Hôpitaux de Bordeaux

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Thursday 25 th march 2010

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Dear members of the AERES committee:

We read carefully your evaluation of our future research unit SANPSY. The project of creating a service and research unit with team 1 and 2 was based on the complementarities of researcher's knowledge on attention on one hand and sleep and alertness on another hand. Following your recommendations we will merge team 1 and team 2 in a single team including researchers from both teams. This new team will be co-directed by Colette Fabrigoule and Pierre Philip to strengthen visibility on both fields of attention and sleep.

We understand your concern regarding the collaborations between team 1 and 2 and team 3. SANPSY is based on the unification of teams currently located in three different research units which explains why our collaborations are not yet as strong as the committee could expect at this time. Our aim is certainly to strengthen them. We are currently applying for grants combining driving, sleep and attention studies on subjects issued from the Addiction Cohort of team 3.

We also noticed your recommendations to recruit new researchers and new post doc. We will increase exchanges with french and foreign researchers to try to recruit them in our unit. We will use to do so networks at the French and International levels: Réseau Eveil Sommeil Attention Transport, the French Sleep Research and Medicine Society, the French Association of Addiction Academics (CUNEA), the European Sleep Research Society, the College on Problems of Drug Dependence and direct contacts we have with clinician-researchers in European and North-American Universities.

In addition, after being created as a service and research unit, we plan to meet the CNRS and University Victor Segalen representatives to obtain tenure positions for post doc students and physicians from the Team 1 and 2 and Team 3 in order to strengthen our unit.

We hope that you will be satisfied by our comments and we stay at your disposal for further information on the creation of our service and research unit.

P. PHILIP

Professeur P. PHILIP  
GENPPHASS

Plate-forme de Recherche Clinique  
Généraliste PELLEGRIN - CHU de BORDEAUX

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