

SCHOOL OF HEALTH SCIENCES

**LIFE AND HEALTH SCIENCES RESEARCH INSTITUTE
(ICVS)**

**ANNUAL REPORT
2006**

INDEX

	Page
1. INTRODUCTION	....4
2. STRATEGIES AND OBJECTIVES FOR 2006	.....5
3. ORGANIZATION AND MANAGEMENT	.....5
4. ACTIVITIES IN 2006	.....7
4.1. Ongoing Research Areas / Teams	.....7
A. INFECTIOUS DISEASES	.....7
B. NEUROSCIENCES	.....7
C. DEVELOPMENT AND NEOPLASIA	.....8
4.2. Externally Funded Projects	.....9
4.3. Scientific Production by ICVS Members	.....9
A. International Publications	.....9
B. National Publications	...10
C. Conferences, Seminars and other Communications	...10
D. Research Prizes	...10
E. PhD and Master's Thesis	...11
4.4. Other Research / Academic Activities	...11
A. Participation in Bilateral Actions	...11
B. Participation in International Networks	...11
C. Participation in Evaluation Panels	...12
D. Membership of the Editorial Board of National / International Journals	...12
E. Organization of Scientific Meetings and Presence in Scientific Committees	...12
F. Participation in Academic Juries	...13
G. Collaboration with National and International Research Institutions	...13

	Page
4.5. Scientific Seminars at ICVS – “Ciência Falada no ICVS”	...13
4.6. Initiatives in Science & Society	...13
4.7. Post-Graduation Programme | 2006	...14
4.8. Stimulation to high quality scientific production by ICVS	...16
5. THE ICVS PROGRESSION IN THE PERIOD 2002-2006	...17
5.1. Human Resources	...17
5.2. Facilities and Laboratory Management	...18
5.3. Financial Resources	...19
5.4. Scientific Results	...19
6. PLANNING FOR 2007	...22
7. FINAL REMARKS	...23
APPENDICES	...24
I – <i>2006 ICVS Scientific Council</i>	
II – <i>2006 EAC Report</i>	
III – <i>List of Researchers and Support Staff at the ICVS</i>	
IV – <i>List of Externally Funded Projects</i>	
V – <i>Lists of:</i>	
• <i>Scientific Production</i>	
• <i>Research Prizes</i>	
• <i>Participation in Academic Juries</i>	
VI – <i>PhD, Master and other Research Students: Thesis, Themes and Supervisors</i>	
VII – <i>“Ciência Falada no ICVS” – Talking about Science at ICVS: Seminars in 2006</i>	
VIII – <i>Post-Graduation Courses</i>	

1. INTRODUCTION

The Life and Health Sciences Research Institute (ICVS) is a fully incorporated research structure within the School of Health Sciences (ECS) of the University of Minho (UM). It was formally integrated in the national system of science and technology by FCT on January 2003 and ranked as Excellent by the FCT's international panel of experts' evaluation (see Report 2004 at ECS/ICVS web page).

The creation of the ICVS was guided, from the very beginning, by the following objectives:

- to promote original lines of investigation with recognized impact in biomedical fields;
- to develop post-graduation activities by promoting international post-graduated programmes;
- to provide specialised health services to the community.

At the same time, the ICVS, as a research structure within the ECS, should also assure that its staff develops a full academic career, including a strong involvement in research. The appropriate links between teaching and research were established in order to provide a "Research-Based Teaching and Learning Environment" for undergraduate students.

In connection with the ICVS, the ECS has proceeded with a strong commitment to progressively consolidate the human and infrastructural resources, as well as the aspects and procedures associated to the organisation and articulation of teaching and research.

The research activities of ICVS are presently focused on three main research domains:

- INFECTIOUS DISEASES
- NEUROSCIENCES
- DEVELOPMENT AND NEOPLASIA

During 2006, 98 researchers (24 PhD, 40 PhD students, 6 Master students and 28 associate researchers) were actively involved in research activities at the ICVS supported by 16 members of the non-academic staff shared with the School. There are 28 ongoing externally funded projects. The results from the scientific work in 2006 were also meaningful, especially the international publications that comprise (including those *in press*) 88 papers, 6 book chapters and 83 abstracts in Congresses.

The present report provides an overall view of the ICVS's main progresses and activities in 2006 and the underlying strategies. Furthermore, a self-assessment of the activities developed in 2006 in comparison with the three former years, 2003, 2004 and 2005, is also presented.

2. STRATEGIES AND OBJECTIVES FOR 2006

The ICVS intends to be not just one more research unit, but rather, a novel research unit. To achieve this goal, the underlying strategy defined for the development of the ICVS (presented in former Reports – 2003, 2004 and 2005 - available at ECS/ICVS web page) is based on consolidation and integration.

In accordance, the main objectives established for 2006 were (i) to continue the ICVS integrative policy of strengthening the critical mass of the research groups and the consolidation of the research projects, (ii) to proceed the post-graduation activities and (iii) to continue the preparation of proper facilities and equipments, including the enhancement of the clinical research infrastructure by expanding clinical research activities.

Therefore, the specific aims established for 2006 were the following:

- increase the number of Post Docs for at least 40% and expand funded collaborative research projects, including at least 1 at international level;
- enhance the scientific production of the ICVS by at least 20% in the Total Impact Factor;
- increase the number of independent clinical research investigators for at least 25% of their working time, in order to competitively apply for general clinical research funding;
- maintain the promotion and recognition of scientific excellence by granting internal awards;
- promote the divulgation of ICVS's activities in the community;
- actively pursue the complement of the contract established with the FCT for the ICVS's funding.

3. ORGANIZATION AND MANAGEMENT

Following the ICVS implemented integrative policy, the research activities are presently organized at the level of Research Domains and respective Principal Investigators (PIs).

The ICVS governing bodies have been consolidated during 2006 and presently are:

- The Scientific Council;
- The Director, that liaises with the Scientific Council;
- The Directive Board;
- The External Advisory Committee.

The Scientific Council (SC) includes all ICVS members with a doctoral degree and its composition in 2006 is listed in Appendix I. The SC meets on a monthly basis, concentrating its activities on the (i) planning of the ICVS development, (ii) evaluation of the activities, (iii) establishment of guidelines and (iv) reinforcement of the links within the ICVS research groups and with other research institutions.

The ICVS Directive Board, internally nominated by the Scientific Council, integrates the Director of the ICVS, one representative of each of the three main research domains and one representative from the ECS Directive Board. In 2006 its composition was:

- Maria Cecília Lemos Pinto Estrela Leão (Director)
- Jorge Manuel Rolo Pedrosa (representative of ECS Directive Board)
- Armando Alberto Nova Pinto de Almeida (representative of “Neurosciences”)
- Paula Cristina da Costa Monteiro Alves Ludovico (representative of “Infectious Diseases”)
- Isabel Maria Mestre Marques Palmeirim Alfarrá Esteves (representative of “Development and Neoplasia”)

The ICVS Directive Board meets on a fortnightly basis, concentrating its activities on (i) monitoring the ongoing activities, (ii) establishing the operating rules for the shared equipment in order to guarantee its rational and optimal use, (iii) determining the sharing of running expenses and (iv) planning the ICVS funding.

The External Advisory Committee, which was appointed at the end of 2005, integrates three international experts. Its present composition is as follows.

- Marina Bentivoglio
Full Professor, Medical Faculty, University of Verona, ITALY
- Alan Flake
Full Professor, the University of Pennsylvania School of Medicine, Philadelphia, USA
- Paulo Vieira
Chargé de Recherche, Pasteur Institute, Paris, FRANCE

The first EAC site-visit took place in 20 June, 2006 and the final EAC Report is in *Appendix II*.

4. ACTIVITIES IN 2006

4.1. Ongoing Research Areas / Teams

A. INFECTIOUS DISEASES

Team

- 6 PhDs
- 8 PhD students
- 3 Master students
- 6 other graduated Researchers

Research Themes

- Human genetic factors predisposing susceptibility to invasive fungal infections
- Identification of clinically relevant fungi causing systemic mycosis
- Cellular and molecular studies in the pathogenic fungi *Paracoccidioides brasiliensis*: Dimorphism and its regulation by steroid hormones
- Elucidation of the mechanisms of action of non-conventional antifungal agents
- Exploitation of yeast as a model to study mitochondrial diseases and neurodegenerative disorder Batten disease
- Apoptotic pathway(s) in *Saccharomyces cerevisiae*: proteomic profile and metacaspase-interactive molecules
- Biology of infection in mycobacteriosis of difficult treatment- Buruli Ulcer
- Understanding BCG infection/vaccination; role of IFN-gamma and IL-17
- Expression and activation of murine Toll-like receptors in B lymphocytes
- Development of drug delivery systems for the treatment of mycobacteriosis

B. NEUROSCIENCES

Team

- 7 PhDs
- 19 PhD students
- 2 Master students
- 10 other graduated Researchers

Research Themes

- Role of stressors/corticosteroids during the perinatal period
- Thyroid hormone status throughout pregnancy: implications to the psychomotor development of the newborn
- Thyroid hormones and vitamin A linking genes and environment in schizophrenia
- Chromatin remodelling and neuronal function: Genetic study of Rett syndrome
- Impact of stress/corticosteroid status in the limbic system
- Aged and healthy brain: a multidisciplinary neurobiological approach to the aging human and rat brain
- Neuroplastic interactions between chronic pain and stress: how does the limbic system

modulate pain?

- Structural, molecular and behavioural changes induced by chronic pain with aging
- Head and Neck Pain: basic and clinical studies
- Ataxin-3 and Machado-Joseph disease: modelling protein function and neurodegeneration
- Genetics of human neurodegenerative disorders
- Peripheral inflammation in neuropsychiatric disorders
- Searching for determinants of depressive-like behaviour: focus on neuronal turnover, structural changes and cytokine expression

C. DEVELOPMENT AND NEOPLASIA

Team

- 10 PhD
- 13 PhD students
- 1 Master student
- 12 other graduated Researchers

Research Themes

- The molecular clock is operating during limb bud development
- Characterization of the molecular clock components by using the yeast Two-Hybrid technology
- Subtraction screening to identify medial presomitic mesoderm genes
- Molecular and temporal characterization of the rostral-most somites in early somitic stages of the chick embryo
- Control of the anteroposterior patterning of axis and the somitogenesis processes
- Dynamics of *Hes1* expression from development to neoplasia
- Prognostic Factors in Experimental and Human Congenital Diaphragmatic Hernia
- Regulatory mechanisms of normal and hypoplastic fetal lung development
- *In utero* overexpression of growth factors in lung by viral gene transfer
- 3rd Generation Surgery: Research in Natural Orifice Transluminal Endoscopic Surgery (N.O.T.E.S.)
- Analysis of DNA polymorphisms in cancer patients of Portuguese origin
- Study of molecular predictive factors of chemo and radiotherapy response in malignant brain tumours
- Role of inflammation in the pathogenesis of side effects induced by cancer chemotherapy
- Monocarboxylate transporters as potential therapeutic targets in solid tumours: physiological, biochemical and molecular approaches, using different biological systems
- Analysis of receptor tyrosine kinases and intracellular signalling pathways alterations in solid tumours

- Study of lymphangiogenesis and angiogenesis in human cancer: evaluation of the effect of somatostatin analogs in the inhibition of angiogenesis
- Role of *FGF1* signalling in the process of PAR1 induce breast carcinogenesis
- Mechanisms of invasion in breast cancer: study of the role of P-cadherin in breast cancer
- Analysis of myoepithelial component role in breast cancer development

MEDICAL EDUCATION

Ongoing work relates to the description of issues of relevance to medical education.

Team

The Medical Education is presently composed of:

- 1PhD, supported by 2 members of the non-academic staff shared with the School.

4.2. Externally Funded Projects

There are 28 ongoing projects coordinated by ICVS members (PIs) with external funding from: FCT (16 projects), Calouste Gulbenkian Foundation (3 projects), *Agência de Inovação* (2 projects), Associação Portuguesa de Urologia (2 projects), Associação Portuguesa de Endoscopia Digestiva (1 project), Sociedade Portuguesa de Cardiologia (1 project), Fundação Bial (1 project), Schering-Plough Farma, Lda (1 project), EMBO Small Grants (1 project). The list of these ongoing projects is presented in *Appendix II* and includes the projects that have been submitted both after the PIs' integration in the ICVS, and before their integration.

4.3. Scientific Production by IcvS Members

The national and international publications in 2006 are summarized below and their detailed lists are presented in *Appendix V*.

A. International Publications

(It includes those in press; IF: Journal's Impact Factor)

- 88 papers
(IF > 8.0: 2 papers; 4.0 < IF < 8.0: 20 papers; 2.0 < IF < 4.0: 35 papers; IF < 2: 26 papers; without IF allocated: 5 papers)
- 5 book chapters
- 2 other publications
- 83 abstracts in Congresses

B. National Publications

- 8 papers
- 1 book chapter
- 40 communications (posters) presented in National Congresses

C. Conferences, Seminars and other Communications

- 62 communications at Conferences, Seminars and other events (see Appendix V).

D. Research Prizes

External Prizes

- “Prémio Pfizer – Sociedade de Ciências Médicas de Lisboa” - Bolsa Pfizer de Investigação em Oncologia e Doenças Oncológicas, Prof. Francisco Gentil, attributed to Reis RM (2006).
- “Prize Grünenthal Pain – Clinical Study”, with the study “Gabapentin associated to Ropivacain significantly improves pain control and quality of life of trigeminal neuralgia patients”, by Lemos L, Flores S, Oliveira P, Almeida A (2006).
- “Excellence Prize in Immunology Mário Arala Chaves”, with the study “Th17 cells inducing a massive recruitment of neutrophils may play a role in Koch’s reaction.” Cruz A, Fraga A, Torrado E, Cooper AM, Pedrosa J, Castro AG (2006).
- “Prémio Hemoportugal de Ecocardiografia 2006”. Attributed by the Portuguese Society of Cardiology to the best original study in echocardiography for the work: “*Avaliação da disfunção ventricular direita no recém-nascido com hipertensão pulmonar secundária a hérnia diafragmática congénita*” by Baptista MJ, Rocha G, Clemente F, Azevedo L, Guimarães H, Areias JC, Correia-Pinto J (2006).
- Prizes for the best communications presented at international and national congresses (posters or oral presentation): 6 prizes awarded to researchers of the ICVS. The detailed list of these Prizes is presented in *Appendix V*.

Internal ICVS Prizes

- Annual Prize to the ICVS Research Domain that published the paper in the International Journal with highest IF: “Neurosciences”; Biological Psychiatry, IF= 6.78
- Annual Prize to the ICVS Domain with the highest Total IF per PhD member: “Neurosciences”; Total IF= 7.81

E. PhD and Master's Thesis

Presently, there are the following theses under development supervised by ICVS PI researchers:

- 40 PhD theses, 37 of which are registered at the ICVS/ECS
- 6 Master theses, all registered at the ICVS/ ECS

In 2006, 6 PhD theses supervised by ICVS researchers were concluded.

A detailed list, comprising PhD, Master and other graduated students with information on Themes and Supervisors is presented in *Appendix VI*.

4.4. Other Research / Academic Activities

A. Participation in Bilateral Actions

1. "Glucocorticoid regulation of mood and cognition relevant neural substrates"
CRUP-DAAD grant
Principal Investigators: Nuno Sousa (ICVS, Portugal) and Osborne Almeida (Max-Planck, Munich, Germany).
Duration: 2005-2006.
2. "Characterization of the iodine status of Portuguese women in fertile age and its relation with the psychomotor performance of the newborn"
Exchange grant CRUP. Bilateral Action Portugal-Spain.
Principal Investigators: Joana Palha (ICVS, Portugal) and Gabriella Morreale de Escobar (Molecular Endocrinology Unit, Instituto de Investigaciones Biomédicas, Madrid, Spain).
Duration: 2006-2008.

B. Participation in International Networks

Isabel Palmeirim

- Member of the "EU network of excellence – Cells into Organs: functional genomics for development and disease of mesodermal organ systemson the development of mesodermal organ systems". <http://www.cellsintoorgans.net>

Rui M. Reis

- Portuguese Member of COST (European Cooperation in the field of Scientific and Technological Research) Action B19 (Molecular cytogenetics of solid tumours), Working Group 4 (DNA technologies).

Manuel João Costa

- Representative of the ECS in the "MEDINE – Medical Education in Europe Network".

C. Participation in Evaluation Panels

- Cecília Leão. Member of FCT evaluation panels for Master, PhD and Post-Doc grants
- Joana Palha. Evaluator for the National Science Foundation (USA).

D. Membership of the Editorial Board of National / International Journals

- M. J. Costa – Editorial Board of the Journal Biochemistry and Molecular Biology Education
- M. J. Costa – Editorial Board of the Biblioteca Digital de Ciências do Laboratório de Tecnologia Educacional da Universidade de Campinas (Brasil), <http://www.ib.unicamp.br/lte/>
- P. Ludovico – Assistant Editor of the Scientific Journal of Food, Agriculture & Environment.
- F. Rodrigues – Assistant Editor of the Scientific Journal of Food, Agriculture & Environment
- C. Leão - Member of National Scientific Committee (FCT) for Biology and Biotechnology
- C. Leão - Member of the Editorial Board of the international journal "FEMS Yeast Research"
- C. Leão - Member of the International Commission for Yeasts – ICY

E. Organization of Scientific Meetings and Presence in Scientific Committees

- Almeida A, Leão C, Ludovico P, Neves N, Pais C, Pedrosa J, Reis R, Sousa N. Organizing Committee of the “XLI Congress of Portuguese Society for Microscopy”. University of Minho, Braga, Portugal (2006).
- Cancedda R, Atala A, Elhj A, Sousa N. Organising Committee of the ESF-EMBO Symposium “Stem Cells in Tissue Engineering – isolation, culture, characterisation and applications”. Saint Feliu de Guixols, Spain (2006).
- Castro A, Pedrosa J, Carneiro J, Lima M, Correia-Neves M, Vilanova M, Cruz A, Torrado E. Organization of the “XXXII Annual Meeting of the Portuguese Society for Immunology, on Innate and Acquired Immunity: evolution and regulation”. University of Minho, Braga, Portugal (2006).
- Palmeirim I, Andrade R. Organizers of the “1st Meeting of the Portuguese Society of Developmental Biology”. Instituto Gulbenkian de Ciência, Oeiras, Portugal.
- Leão C., Member of the Scientific Committee of the National Biochemistry Congress, University of Aveiro, Portugal (2006).

F. Participation in Academic Juries

In 2006, 12 ICVS PIs (from the faculty staff) integrated 31 academic juries for Master degree (4) and PhD degree (27).

The detailed information is in *Appendix V*.

G. Collaboration with National and International Research Institutions

Besides the cooperation with several Research Centres within the University of Minho, the ICVS keeps regular cooperation with several national and international research institutions. This information is available at ECS/ICVS web page.

4.5. Scientific Seminars at ICVS – “Ciência Falada no ICVS”

The so called “Ciência Falada no ICVS” was institutionalised in 2003, consisting on regular seminars –held on a weekly basis. To these meetings, internal and external scientists were invited to present their work. In 2006, 37 seminars were organized: 16 with PhD students, 7 with the PIs of the different research groups and 14 with external invited researchers.

The list of these seminars is presented in *Appendix VII*.

4.6. Initiatives in Science & Society

- Costa MJ. Organization of the Meeting “TIC e Ensino de Ciências – diálogos entre as literacias digital e científica”. University of Minho, Braga, Portugal.
- Costa S. “Nova descoberta ajuda a detectar cancro da mama”, scientific promotion publication present in the national newspaper “Jornal de Noticias” (20-12-2006).
- Palmeirim I. Participation on the “Next generation Science Program”, University College of London, London, UK.
- Palmeirim I, Andrade R. “Como se faz um embrião” - Activity for young students (12-15 years) at Visionarium, Santa Maria da Feira, Portugal.
- Palmeirim I. Participation in a round table on “Ethics in embryo manipulation”, High School in Guimarães, Portugal.
- Palmeirim I. Selected researcher for an interview on the national broadcasting radio TSF “Seleção de esperanças”.
- Palmeirim I. Selected researcher for the “Profissão: Cientista - Retratos de uma geração em trânsito”, scientific promotion publication distributed with the national newspaper “Público”.

- Pinto-Ribeiro F, Gonçalves L, Duarte M, Costa S, Correia A, Gonçalves A, Gomes A, Pereira M, Martinho O, Baltazar F, Pinheiro F, Alonso I, Mesquita AR, Andrade R, Bajanca F, Valle-Fernandes A, Cruz A, Torrado E, Fraga A, Ferreira M, Resende T, Marques MB, Mesquita A, Santos M, Rodrigues AJ, Costa MC, Maciel P, Fernandes A. Interaction with students from primary school during the “Portas Abertas “ session of the “Science and Technology Week”.
- Rodrigues F. “Universidade do Minho regista patente na área da saúde”, scientific promotion publication present in the national newspaper “Jornal de Notícias” (16-08-2006).
- Reis RM. “Estudo em oncologia vale bolsa a investigador da U.M”, scientific promotion publication present in the national newspaper Domingo “Correio do Minho” (03-12-06).
- Reis RM. “Estudo sobre tratamento de cancro cerebral ganha prémio Pfizer dedicado a Francisco Gentil”, scientific promotion publication present in the national newspaper Domingo “Público” (24-11-06).
- Reis RM. “Melhor estudo sobre evolução de tumores cerebrais”, scientific promotion publication present in the national newspaper Domingo “Diário Económico” (14-12-06).
- Reis RM. scientific promotion interview at program “Mentes que Brilham” at Norte Canal TV station (26-12-06).
- Teixeira A, Palmeirim I. Organization of two activities in the “Science and Technology Week”: “Portas Abertas” and “Ciclo de cinema científico” (activities financed by EMBO).

4.7. Post-Graduation Programme | 2006

Scientific Content and Structure

In 2006, and for the sixth consecutive year, we offered a highly specialized training for medical doctors and investigators in biomedical sciences. To run this programme, we found financial support of “Fundação Calouste Gulbenkian”, as well as of several companies: Alfagene, Bioportugal, VWR International, PG-Hitec, Dias de Sousa S.A., Bonsai Technologies, INOPAT, Olympus, ENZIfarma, Frilabo, Reagente 5, Roche, Labometer, Sarstedt, Tadinense and Delta Cafés. We are grateful to our sponsors for the helpful contribution for this international program of courses in biomedical sciences and educational workshops.

The 2006 post-graduation programme included twelve courses and six educational workshops. In the past year of 2005, we started offering courses on medical education, which was continued in the year 2006. The increase in the number of the educational workshops and the success obtained encouraged us to pursue the challenge of research in medical education and to promote activities that develop individual’s abilities to teach.

In 2006 we offered new editions of courses “Laboratory Animal Science”, “Neurosurgery” and “Photodynamic Therapy: Basics and Clinical Applications” that had been very successful in previous years and that continue to represent areas of demand among the participants. In particular, for the second consecutive year we offered the training on “Laboratory Animal Science”, which provides international certification for research using animal models. For the third time the course “Neurosurgery” took place reinforcing the importance of the new laboratory of neurosurgery for advanced training that will be installed in the new facilities. In addition, we also provided the third edition of the course “Photodynamic Therapy: Basics and Clinical Applications” now within the “International Training Programme” of EURO-PDT.

The programme included novel courses in diverse scientific areas and among this multiplicity, we highlight the course “Stem cells: Pitfalls and Successes” that was recognized as an “Advanced Training Program” of the Portuguese Society for Stem Cells and Cellular Therapies (<http://www.spce-tc.org/>). It is also worth to note that the course “Mental Retardation: from clinic to gene and back” had the support of “Fondation Jérôme Lejeune”, which allowed us to give five scholarships to foreign students. In addition, the course “Proteomics in Life Sciences” was organized within "European Proteomics Association" and the “Portuguese Proteomics Network”.

More detailed information of the programme (courses and educational workshops) is available at (<http://www.ecsaude.uminho.pt/postgrad>).

Participants Background

In 2006 the International Postgraduate Programme counted with 447 participants, the highest level of participation since the programme started, which might reflect an increased interest of biomedical researchers and clinicians in the offer we propose. The vast majority of participants are researchers from biological sciences (37%) or medical doctors (35%). The vast majority of the participants belong to Portuguese Institutions other than Minho University, which is very representative of the growing acceptance of our programme in the national biomedical research and medical communities. Although still in a lower percentage, our programme counted with participants from international institutions, particularly in the courses “Neurosurgery”, “Nervous System and Immune System: a Struggle and a Dialogue” and “Mental Retardation: from Clinic to Gene and Back”, which reinforce our programme as an international one.

Evaluation results

A questionnaire was filled by most of the participants to evaluate several aspects of each course or workshop. The overall evaluation provided the following results: excellent (45%),

Very good (45%), Good (8%), Fair (0%), Poor (0%).

In most cases, participants considered that the courses should be repeated in years to come and would recommend it to a peer, which represents a great incentive to continue and consolidate our programme.

4.8. Stimulation to high quality scientific production by ICVS

The ICVS continues to pay careful attention to the promotion of the quality of scientific production by the different ICVS Research Domains. In 2006, the strategic actions listed below that have been initiated in 2005 were again implemented.

- a) Attribution of an Annual Prize to the ICVS Research Domain (Infectious Diseases, Neuroscience and Development-Neoplasia) that published the paper in an International Journal with the highest Impact Factor, given that one domain member (i) is the first or last author and (ii) has the ICVS as main institutional affiliation.

PRIZE: 7 500 Euros

- b) Attribution of an Annual Prize to the ICVS Research Domain with the highest Total Impact Factor per PhD member, considering all papers published in International Journals, given that each paper has a domain member (i) being the first or last author and (ii) presenting the ICVS as main institutional affiliation.

PRIZE: 10 000 Euros

- c) Attribution of an Annual Prize to the ICVS Research Domain with the paper presenting the highest number of Citations in the 5 years following its publication, given that one domain member (i) is the first or last author and (ii) has the ICVS as main institutional affiliation. The first edition of this Prize will be in 2008 and will recognize the 2003 ICVS paper presenting the highest number of citations during the period 2003-2007.

PRIZE: 5000 Euros

- d) Payment of the costs implicated in publishing papers in International Journals, until 750 Euros per article, after request submitted to the ICVS Directive Board.

5. THE ICVS PROGRESSION IN THE PERIOD 2002-2006

5.1. Human Resources

Since its creation, there was a significant expansion of human resources in ICVS, which allowed the consolidation of the research groups. Fig. 1 clearly shows the significant expansion of the human resources, namely the research staff, especially in 2003. On the other hand, it is also clear that the number of PhD students increased along the four years, while the number of Researchers|*Licenciados* decreased, which indicates a progression in the scientific differentiation of the ICVS staff. Moreover, in 2005 an increase in the number of Post-Docs was already noticeable, and in 2006 it increased to a total of 8, very close to our goal (at least three per research domain).

	2002	2003	2004	2005	2006
Researchers | PhDs - PIs - Post- Docs	12 (11) (1)	16 (13) (3)	17 (14) (3)	21 (15) (6)	24 (16) (8)
Researchers | PhDs Students	8	21	33	37	40
Researchers | <i>Licenciados</i>	31	36	37	31	34
Laboratories Support Staff *»	6	8	10	10	15
Project Support Office & Post-Graduation	1	1	2	2	2
TOTAL	58	82	100	101	115

* Shared with ECS

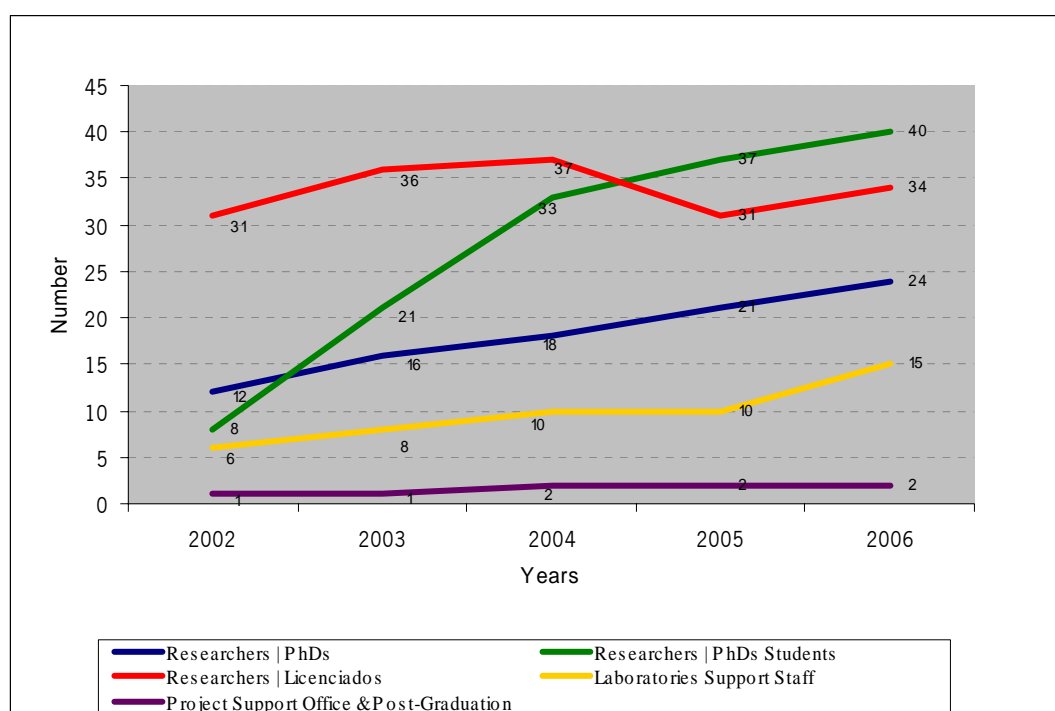


Fig. 1. ICVS Progression of Human Resources

5.2. Facilities and Laboratory Management

Detailed information about the ICVS facilities is available at the *web* page of the School.

For 2006, it was possible to achieve an important expansion of the School/ICVS's facilities, by occupying some new spaces located in an area adjacent to the upper floor of the Laboratory Facilities Building. This expansion also allowed for the creation of additional areas for the ICVS research groups, as well as for facilities that were previously located in the lower floor of the laboratory area – a place for the post-graduation students and a place for the informatics office.

The spaces made free at the laboratory area are presently used for a Confocal Microscopy Facility, for a DHPLC/electrophoresis room and for the expansion of the Animal Facility.

The medical students may have access to the research area located in the lower floor to perform specific techniques, to carry on the “Optional Project” under the supervision of the project instructor, as well as for the laboratorial rotations in the context of the MD/PhD Programme.

As stated in previous Reports, the area for research and postgraduate studies is organised into different, functionally specific laboratories. This network of shared facilities was established to support, in a multidisciplinary way, the different research domains and concern the following laboratorial areas: Biosafety Level 2 Immunology, Molecular Biology, Tissue and Cell Culture, Immunochemistry, Histology and Tissue Processing, Development Studies, Biosafety Level 2 Molecular Microbiology, Microscopy and Confocal Microscopy. Both researchers and postgraduate students of the ICVS share these laboratories. Each researcher has a “home base” in the laboratory most closely related to its specialisation. Furthermore, there are several support rooms: a technicians' office, a centrifuge and ultra freezer room, an anatomy cadaver preparation room, a DHPLC/electrophoresis room, storage rooms, a dark room, a 4° temperature controlled room, a radioisotopes room, a gamma-counter room and an area for animal experimentation. The important expansion of the animal facility performed in 2006 increased the actual capacity for 2 300 mice and 900 rats, and is divided into three distinct areas: an external quarantine room, a biosafety level 3 negative pressure area for animal models of infection and a positive pressure clean area which includes rooms for surgery in animal models, as well as for behavioural studies in animal models.

In the meanwhile, the ICVS has launched a process for the setting up of a Microscopy Center in the UM, with the partnership of other research units of the university. This center will be installed in the ICVS and will include Units of Confocal Microscopy with specific characteristics, as well as a Microscope for Microdissection. This structure will be run by a specialized technician that will provide services to several research groups in UM.

5.3. Financial Resources

Summarizing, the following pluriannual contracts are presently signed for ICVS funding.

1. The contract signed by the Ministry of Science and Higher Education in March 2004, for the infrastructural funding of the ICVS, over a period of three years:
 - Total amount of 795 380 Euros (with 20% co-partnership from the ECS), of which 165 274 Euros were actually transferred in 2006
2. The proposal, from the FCT to the Ministry of Science and Higher Education, approved in March 2005 (to complement the contract signed in 2004):
 - Total amount of 1.5 million Euros, over a period of three years (up to 2007), of which only 200 000 Euros were actually transferred in 2006.

Regarding the basal funding for the ICVS, the FCT has transferred in 2006 an amount of 42 284 Euros, which is less than half of the officially allocated value of 97 500 Euros.

The research projects at the ICVS, with an average duration of three years, attracted external funding of about 1,77 million Euros, of which 518 374 Euros correspond to the activities in 2006.

In conclusion, in the year 2006 the ICVS had a total external income of around 0.92 million Euros.

Notwithstanding the external financing granted in 2006, the ECS continued to assure the maintenance costs of facilities and general expenses to all research groups.

5.4. Scientific Results

The main results achieved in 2006, compared with those from 2003, 2004 and 2005, are summarised in Table 1 and Fig. 2.

As it can be seen, the scientific production of the ICVS members, expressed by the international scientific production indicators (papers and book chapters), although reaching a steady state in terms of n° of publications, showed an increase in the mean average of Impact Factor, which expresses the increasing relevance of the ICVS publications.

Table 1. Evolution of the scientific production in 2003, 2004, 2005 and 2006

Scientific Production	2003	2004	2005	2006
International publications				
<i>Papers</i> (those <i>in press</i> are not included) *	25	36	49	46
<i>Book Chapters</i> (those <i>in press</i> are not included) *	2	1	6	1
<i>Abstracts in Congresses</i>	40	60	45	83
National publications				
<i>Papers</i>	1	5	2	6
<i>Book Chapters</i>	1	2	3	1
<i>Abstracts in Journal Supplements and in Congresses</i>	23	28	31	40
Thesis concluded				
<i>PhD thesis</i>		1	3	6
<i>Master thesis **</i>	2	1	2	
<i>Undergraduate thesis</i>	10		2	4
Thesis under development				
<i>PhD thesis</i>	18	32	36	40
<i>Master Thesis</i>	2	7	8	6
Scientific research prizes	5	10	11	10
Post-graduation courses and Workshops organized by the ICVS	6	10	10	14

* In this pluriannual analysis the publications *in press* were not considered, while in the annual analysis of scientific production presented in 4.3.A above they were included.

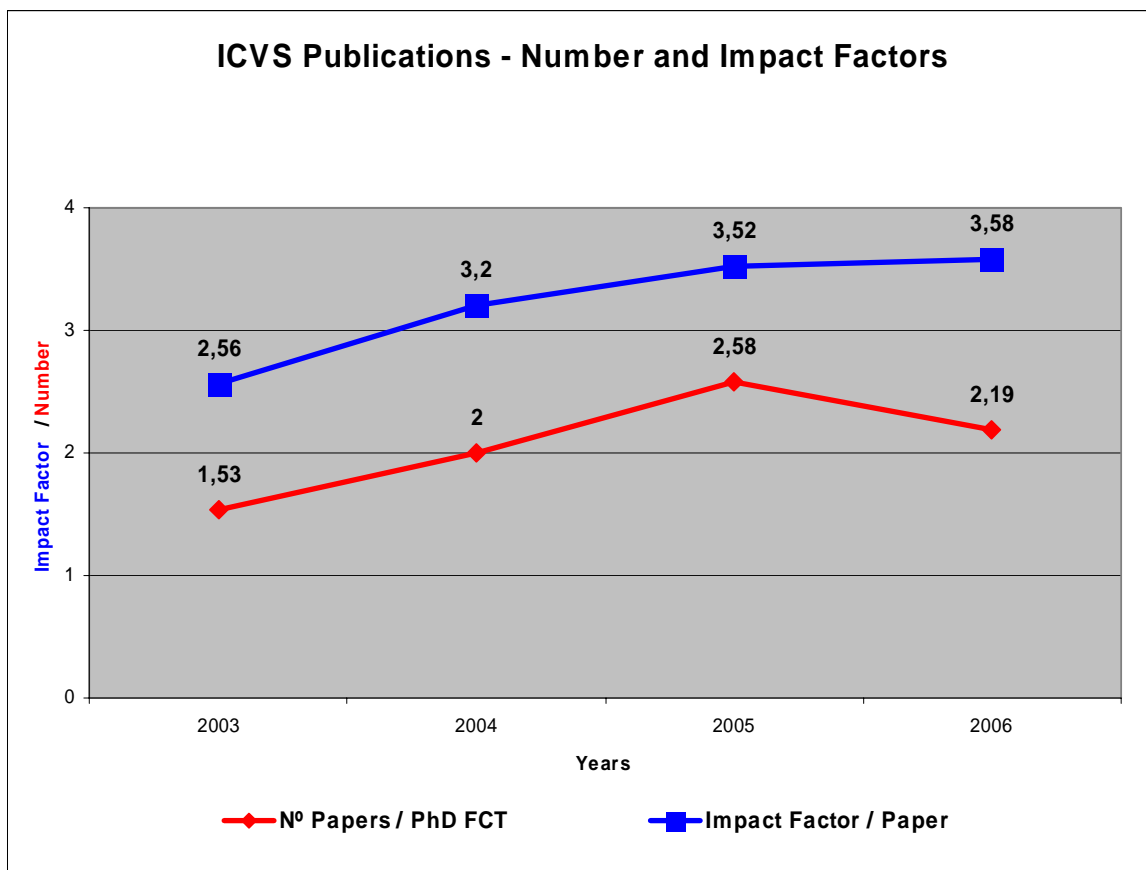


Fig. 2. Evolution of the scientific production in 2003, 2004, 2005 and 2006

6. PLANNING FOR 2007

The three main research domains are now established. Strong interactions between the three research domains are being fostered.

We intend to strengthen our scientific production by enhancing the number of publications as well as their quality (expressed by the publication Journals' Impact Factor), and expand funded collaborative research projects.

The post-graduation programmes should be maintained and an effort should be done to promote a programme for continuous biomedical education.

The beginning of the MD/PhD programme in 2006, for which we count with the collaboration of the Thomas Jefferson Medical School and the Columbia University Medical School, will be another major challenge for 2007 and following years.

Moreover, one important goal of the ICVS for the years to come is to enhance the clinical research. This task is viewed as a critical tool to foster the productivity of physician-scientists who will strengthen translational research.

Therefore, the specific aims for 2007 are the following:

- increase the number of Post Docs for at least 30% and expand funded collaborative research projects, including at least 1 at international level;
- enhance the scientific production of the ICVS by at least 20% in the Total Impact Factor;
- increase the number of independent clinical research investigators for at least 25% of their working time, in order to competitively apply for general clinical research funding;
- maintain the promotion and recognition of scientific excellence by granting internal awards;
- promote the divulgation of ICVS activities in the community;
- actively pursue the complement of the contract established with the FCT for the ICVS's funding.

We continue aware of the crucial importance of diversification of funding sources reducing as much as possible the ICVS funding by the ECS.

Finally, the new building for the School of Health Sciences, to be completed during 2007, which includes a specific area for the ICVS with 6 000 m², will be one of our major challenges, particularly in what concerns its planning and external funding for laboratory facilities.

7. FINAL REMARKS

The analysis of the present report illustrates a positive progression of the scientific production (both quantitatively and qualitatively) of the ICVS during the period 2003-2006. In addition, the enthusiasm, commitment, availability and competence of this scientific community – faculty, staff, and students – constitute also a major achievement of the Institute, as it was recognized by the ICVS's External Advisory Committee.

In what concerns the objectives proposed for 2006, namely the increase in the scientific production and in the differentiation of the research staff, very positive developments were achieved. The number of Post-Docs attained, a total of 8, is very close to our goal (at least three per research domain). As for the scientific production, we reached a steady state in terms of number of publications rather than the +20% proposed. Nonetheless, a higher scientific impact of the ICVS publications (expressed by the Journal Impact Factor) was obtained.

The **strong** points of ICVS include:

- the recognition by the External Advisory Committee of the high quality of the work developed by the ICVS (Appendix II);
- the increasing scientific quality of the ICVS publications;
- the standards of the facilities, in spite of their provisional status, and its function-oriented organisation;
- the innovative coordination and management procedures;
- the continuous support from the Rector and the University;
- the progress in the construction of the new building that will be finished during 2007.

The main **weaknesses** are the limitations associated to the present exiguous dimension of the ICVS's animal facilities. The capacity to rise sustainable funding is also a critical issue as well as the necessary scientific “critical mass” of differentiated researchers, namely at the post-doc level.

In conclusion, it is our deep conviction that, albeit the above difficulties, the main goals for 2006 were achieved through the constant institutional support of the School together with the enthusiasm and commitment of all ICVS Members.

The goals that we have set forth for 2007 seem attainable and will enable the ICVS to consolidate the high standards of quality in its collective and individual achievements, as a “Research Unit of International Excellence in Life and Health Sciences” within a Medical School.

*Cecília Leão
ICVS Director
January, 2007*

APPENDICES

APPENDIX I

2006 ICVS Scientific Council

APPENDIX II

2006 EAC Report

APPENDIX III

List of Researchers and Support Staff at the ICVS

APPENDIX IV

Externally Funded Projects

APPENDIX V

List of Scientific Production

List of Research Prizes

List of Participations in Academic Juries

APPENDIX VI

PhD, Master and other Research Students: Theses, Themes and Supervisors

APPENDIX VII

Scientific Seminars at ICVS – “Ciência Falada no ICVS”

APPENDIX VIII

Post-Graduation Courses

APPENDIX I

2006 ICVS Scientific Council

2006 ICVS Scientific Council

Permanent Members

- Adhemar Longatto Filho
- António Gil Pereira de Castro
- António José B. O. Gomes Salgado
- António Pedro Barros Gomes
- Armando Alberto Nova Pinto de Almeida
- Fernanda Maria Vinagre Bajanca
- Fernando José dos Santos Rodrigues
- Isabel Maria Mestre Marques Palmeirim Alfarra Esteves
- Joana Cancela de Amorim Falcão Paredes
- Joana de Almeida Santos Pacheco Palha
- João Carlos Cruz Sousa
- João José F. Cardoso A. Cerqueira
- Jorge Manuel Nunes Correia Pinto
- Jorge Manuel Rolo Pedrosa
- Manuel João Tavares Mendes da Costa
- Maria Cecília Lemos Pinto Estrela Leão
- Maria de Fátima Monginho Baltazar
- Maria de Fátima Pereira Duarte
- Nuno Jorge Carvalho de Sousa
- Patrícia Espinheira Sá Maciel
- Paula Cristina da Costa Alves Monteiro Ludovico
- Raquel Gláucia Varzielas Pêgo de Andrade
- Rui Manuel Vieira Reis
- Rute Carina da Silva Moura

Invited Members

- Fernando Carlos de Lander Schmitt

APPENDIX II

2006 EAC Report

Institut Pasteur

25, RUE DU Dr ROUX,
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Paris, October 31st 2006

Report by the External Advisory Committee of the *Instituto the Ciências da Vida e da Saúde (ICVS)*

The External Advisory Committee (EAC) of the ICVS is composed of Drs. Marina Bentivoglio (University of Verona, Verona), Alan Flake (University of Pennsylvania, Philadelphia) and Paulo Vieira (Pasteur Institute, Paris). On June 20th 2006 the Committee visited the facilities of the ICVS, interviewed the research staff, post-docs and students, and met with the Board of Directors of the Health School (ECS) and of the ICVS. This report summarizes our opinions and advice regarding the research activities of the ICVS.

We were very satisfied to see that the ICVS laboratories are organized in a network of shared facilities that support the research groups in a multidisciplinary way. This type of organization, as well as the centralized system for the management of reagents and consumables, is very efficient and contributes decisively to the maximization of the available resources.

In general terms we were very favorably impressed with the achievements of the research staff in such a short period of time (the Institute initiated its activities in 2003). The Institute has managed to publish an impressive number of scientific papers, in spite of the serious constraints resulting from the insufficient space they work in, and the cramped conditions of the support facilities (we mention in particular the reduced size of the Animal Quarters). The new facilities under construction in the Gualtar Campus, which we visited, are however ample and should provide a significant opportunity to further strengthen the research work at the ICVS and permit development of new areas of research.

The ICVS is structured around 3 main "Domains of Research": "Development and Neoplasia", "Infectious Diseases" and "Neurosciences".

It makes sense that a new and competitive Institute, such as the ICVS, has chosen a restricted number of strategic areas where to concentrate their research efforts. In the near future, available resources should not be dispersed, but used primarily to reinforce those areas that can produce competitive research. The specific areas of research selected at the launching of ICVS are important and internationally competitive and seem adequate to the needs of a country like Portugal.

Additionally, the ICVS plays a critically important role in the context of the ECS medical course. The opportunity given to students to integrate competitive research groups in diversified areas of biomedical science contributes to the high quality of the medical teaching at ECS as well as the PhD and other post-graduate programs of the school. The ICVS will also play a fundamental role in the future MD/PhD program of

the ECS.

The investigators in the 3 "Domains" interact easily with each other and pursue a number of "cross-Domain" collaborative projects. The friendly relations between the members of the staff and the development of collaborative projects are a very strong point of the Institute, and we encourage its Directors to pay special care that future expansion of the ICVS, and the recruitment of new research groups, does not interfere with the nice spirit of close solidarity we observed in our visit.

The ICVS also has a number of PhD students and post-Docs for research training. This personnel, having no obligatory teaching duties, are naturally the most active at the bench. As is always the case, the supervisors should ensure that their other teaching and managerial duties do not prevent them from adequately supervising and training this class of researchers. The number of post-Docs is somewhat small and in our opinion the recruitment of more post-Docs would benefit research at the Institute.

Given that the Institute is still in its "infancy" special care is needed to encourage its continued development. We urge the National Authorities, the University of Minho (UM) and the ECS to be serious and consequent in the support they are prepared to offer the ICVS. We identified in particular the following areas where special support from the University, the School and the National Authorities is vital for the transformation of the ICVS into a solid, internationally renowned Research Institute:

- The Animal Facilities are exiguous and represent at the moment the most serious impediment to the research carried out at the ICVS. It is urgent that funding be made available to build an animal facility of a reasonable size and with a spacious containment facility. This is particularly urgent in view of the impending move to the new Institute (under construction), when the physical distance that will separate the Labs from the animal quarters will rapidly become a major handicap. We advise that a new animal facility be built in close proximity to the new Institute, in time for it to commence operations at the time of the move.

- The Institute does not have a Library and lacks subscriptions to major Research Journals. The ability to read the scientific literature in a timely fashion is of major importance in conducting research that is internationally competitive. We strongly advocate the allocation of a specific budgetary item (eventually with financial support from the relevant authorities) to correct this.

- All of the academic staff of the ECS accumulate their research activities with teaching duties at ECS. The pedagogic approaches followed in the school lead to the concentration of the teaching activities in specific periods of the academic year, which favors the research activities of the academic staff members. On average the annual workload of their pedagogic activities is 40% whereas research activities occupy 60% of their time. It is very important that this policy be kept and continuous care should be taken to prevent the teaching duties from becoming an unbearable burden and interfering seriously with the conduct of research. The recruitment of staff whose primary duty is to do research should be a priority. In this context, the attribution to the ICVS of a number of research positions (with no teaching duties) would be a significant improvement on the current situation. Allocation of financial resources for the recruitment of highly differentiated technical staff would also be very important for the research activities of the ICVS.

- The institute has already a number of pieces of scientific equipments acquired with financial resources, allocated mainly by ECS. Recently, Portuguese governmental agencies for science granted the ICVS with funds that will be used to purchase heavy scientific equipments such as a confocal microscope, a microdissector microscope and a DHPLC. This amount is clearly insufficient for the challenge of equipping the new ICVS building with state of the art scientific equipment as well as other pieces of fundamental heavy equipment such

as a cell sorter, an electron microscope, electrophysiology apparatus, etc. The support of governmental agencies, through the allocation of further funding to allow the purchase of more scientific equipment, is necessary to establish a high standard, internationally competitive, institute in biomedical research at the UM.

Paulo Vieira (on behalf of the members of the EAC: **Marina Bentivoglio, Alan Flake**)

Unité du Développement des Lymphocytes.

Institut Pasteur de Paris

APPENDIX III

List of Researchers and Support Staff at the ICVS

I.1 PhD RESEARCHERS

Name	Qualification	ECS Position (Rank)	Research Domain
António Gil Pereira de Castro	PhD	Assist. Professor	Infectious Diseases
António Pedro Barros Gomes	PhD	PD	Infectious Diseases
Fernando José Santos Rodrigues	PhD	Assist. Professor	Infectious Diseases
Jorge Manuel Rolo Pedrosa	PhD	Associate Professor	Infectious Diseases
Maria Cecília L. P. Estrela Leão	PhD	Director/Full Professor	Infectious Diseases
Paula Cristina C. A. M. Ludovico	PhD	Assist. Professor	Infectious Diseases
António José B. O. Gomes Salgado	PhD	PD	Neurosciences
Armando Alberto N. Pinto Almeida	PhD	Assist. Professor	Neurosciences
Joana Almeida S. Pacheco Palha	PhD	Associate Professor	Neurosciences
João Carlos Cruz Sousa	PhD	Assist. Professor/PD	Neurosciences
João José F. Cardoso A. Cerqueira	MD/PhD	Assist. Professor	Neurosciences
Nuno Jorge Carvalho de Sousa	MD/PhD	Associate Professor	Neurosciences
Patrícia Espinheira de Sá Maciel	PhD	Assist. Professor	Neurosciences
Adhemar Longatto Filho	PhD	Assist. Professor	Development & Neoplasia
Fernanda Vinagre Bajanca	PhD	PD	Development & Neoplasia
Isabel M ^a Palmeirim A. Esteves	MD/PhD	Assist. Professor	Development & Neoplasia
Joana C. de Amorim F. Paredes	PhD	PD	Development & Neoplasia
Jorge Manuel Correia Pinto	MD/PhD	Associate Professor	Development & Neoplasia
Maria de Fátima M. Baltazar	PhD	Assist. Professor	Development & Neoplasia
Maria de Fátima Pereira Duarte	PhD	PD	Development & Neoplasia
Raquel G. V. Pêgo de Andrade	PhD	PD	Development & Neoplasia
Rui Manuel Vieira Reis	PhD	Assist. Professor	Development & Neoplasia
Rute Carina Silva Moura	PhD	Assist. Professor/PD	Development & Neoplasia
Manuel João T. Mendes da Costa	PhD	Assist. Professor	Medical Education

I.2 POST-GRADUATION RESEARCHERS

I.2.1 PhD Students

Name	Qualification	ECS Position (Rank)	Research Domain
Agostinho Albérico R. Carvalho	Lic.	BD	Infectious Diseases
Agostinho J. R. Almeida	Lic.	BD	Infectious Diseases
Alexandra Gabriel Fraga	Lic.	BD	Infectious Diseases
Andrea Patrícia Ribeiro da Cruz	Lic.	BD	Infectious Diseases
Bruno Miguel B. R. Almeida	Lic.	BD	Infectious Diseases
Egídio Manuel Pires Torrado	Lic.	BD	Infectious Diseases
Maria Rosinda Teixeira Coelho	Lic.	BD	Infectious Diseases
Nuno Miguel Sampaio Osório	Lic.	BD	Infectious Diseases

Ana João Gomes Rodrigues	Lic.	BD	Neurosciences
Ana Raquel Marcelino Mesquita	Lic.	BD	Neurosciences
Anabela Silva Fernandes	Lic.	BD	Neurosciences
Dina Ruano Neto	Lic.	BD	Neurosciences
Eduardo Miguel G. Ferreira	Lic.	BD	Neurosciences
Fernanda Cristina G. S. Marques	Lic.	BD	Neurosciences
Filipa Santos Costa Pinto Ribeiro	Lic.	Assistant	Neurosciences
João Miguel Seïça Bessa Peixoto	MD	Assistant	Neurosciences
Jorge A Berkeley Cotter	MD	Clinical Supervisor	Neurosciences
José M. Gomes Moreira Pêgo	MD	Assistant	Neurosciences
Laurinda M ^a S. Guimarães Lemos	MD	PhD student	Neurosciences
Manuel José Lima C. Rodrigues	MD	Assistant	Neurosciences
Maria do Carmo Pereira da Costa	Lic.	BD	Neurosciences
Maria Conceição Félix Bettencourt	Lic.	BD	Neurosciences
Maria José T. C. Costeira Paulo	MD	PhD student	Neurosciences
Maria Leonor Barbosa Gonçalves	Lic.	BD	Neurosciences
Mário Jorge Alves Oliveira	MD	Assistant	Neurosciences
Mónica Joana Pinto Santos	Lic.	BD-IBMC	Neurosciences
Rui Jorge de Freitas da Silva	Lic.	BD	Neurosciences
André João A. M. S. Albergaria	MD	BD	Development & Neoplasia
Bruno Filipe Marques Costa	Lic.	BD	Development & Neoplasia
Carla Rolanda Gonçalves	MD	Assistant	Development & Neoplasia
Céline Pinheiro	Lic.	BD	Development & Neoplasia
Estêvão Augusto Rodrigues Lima	MD	PhD student	Development & Neoplasia
Jorge Sérgio Reis Filho	MD	BD	Development & Neoplasia
Liliana Alexandra Osório Silva	Lic.	BD	Development & Neoplasia
Maria João Ribeiro Leite Baptista	MD	Assistant	Development & Neoplasia
Marta Alexandra Ribeiro Santos	Lic.	BD	Development & Neoplasia
Sandra Maria Araújo da Costa	Lic.	BD	Development & Neoplasia
Silvia Gonzaga da Silva Santos	Lic.	BD	Development & Neoplasia
Sofia M. C. Rodrigues Cristóvão	Lic.	BD	Development & Neoplasia
Susana Alexandra R. Pascoal	Lic.	BD	Development & Neoplasia

I.2.2 Master Students

Name	Qualification	ECS Position (Rank)	Research Domain
Matilde de Oliveira Barbosa	Lic.	MT	Infectious Diseases
Nuno Gonçalo C Carço Santos	Lic.	MT	Infectious Diseases
Sandra Cristina B.Alves Pereira	Lic.	MT	Infectious Diseases

Andreia Cristiana Teixeira Castro	Lic.	MT	Neurosciences
Maria José Barros Pereira	MD	MT	Neurosciences
Isis Legath Alonso	Lic	BI	Development & Neoplasia

I.2.3 Researchers with Graduation

Name	Qualification	ECS Position (Rank)	Research Domain
Ana Maria Macedo Mesquita	Lic.	BI	Infectious Diseases
António Barroso	Lic.	BI	Infectious Diseases
Cristina Amorim Cunha	Lic. Student	Researcher	Infectious Diseases
Jenny Andrea Carmona Valência	Lic.	BTI	Infectious Diseases
Maria de Belém Marques	Lic.	BI	Infectious Diseases
Marisa Teixeira	Lic. Student	Researcher	Infectious Diseases
Ana Lídia F. M. Valle Fernandes	Lic.	Researcher	Neurosciences
André Filipe Couto Carvalho	MD	Assistant	Neurosciences
Hugo Miguel Braga A. Tavares	MD	Assistant	Neurosciences
Hugo Miguel Vale L. S. Almeida	Lic.	Monitor	Neurosciences
Joana Fraga	Lic. Student	Researcher	Neurosciences
Pedro Alexandre L. A. G. Teixeira	MD	Assistant	Neurosciences
Ricardo Jorge Ferreira Taipa	MD	Assistant	Neurosciences
Sónia Pimentel	Lic. Student	Researcher	Neurosciences
Susana Cristuna Roque de Oliveira	Lic.	BTI	Neurosciences
Teresa Nazareth	Lic. Student	Researcher	Neurosciences
Ana Lúcia Silva Gomes	Lic.	BI	Development & Neoplasia
Ana Luísa Pinto Correia	Lic. Student	Researcher	Development & Neoplasia s
Caroline Jeya Sheeba	MSc	BI	Development & Neoplasia
Cristina Isabel Nogueira Silva	MD student	Monitor	Development & Neoplasia
Cristina Freitas	MD student	Monitor	Development & Neoplasia
Gustavo Filipe Melo A. Rocha	MD	Assistant	Development & Neoplasia
Maria Fernanda Grillo Milanezi	MD	Assistant	Development & Neoplasia
Marta Sofia Carvalho R. V. Pereira	Lic.	Researcher	Development & Neoplasia
Sandra Mónica B.A. Ferreira	Lic.	BTI	Development & Neoplasia
Sérgio Nabais	MD	Assistant	Development & Neoplasia
Susana Nunes	MD	Assistant	Development & Neoplasia
Tatiana Resende	Lic.	BI	Development & Neoplasia

BD = PhD students with a grant from FCT
BI = Research grant from either FCT or projects
BTI = Technical research grant from projects
Lic. = “Licenciatura”
MD = Medical degree
MT = Master thesis students
PD = Post-doctoral researcher

I.3 SUPPORT STAFF

Name	Qualification	Position (Rank)	Service
Fernanda Isabel T. M. Santos	PhD	<i>Técnico Superior</i>	Laboratories
Ana Cristina M. R. Taboada	Lic.	<i>Técnico Superior</i>	Laboratories
Isabel Alexandra Magalhães Dias	Licenciatura	Veterinária (avença)	Laboratories
Lucília G. Ribeiro Pinto	Lic.	<i>Técnico Superior</i>	Laboratories
Magda João Castelhana Carlos	Lic.	<i>Técnico Superior</i>	Laboratories
Maria Paulina D. M. Santos	Lic.	<i>Técnico Superior</i>	Projects Support Office
Nuno Duarte S: S. Vasconcelos	Lic.	<i>Técnico de Diagnóstico e Terapêutica</i>	Laboratories
Luís Filipe F. Oliveira Martins	Lic.	<i>Técnico Profissional de 2ª classe</i>	Laboratories
Domingos Ferreira Dias	Sec. Education	<i>Técnico de Informática Adjunto</i>	Laboratories
Sónia Margarida R. da Cruz	Bachelor	<i>Assistente Administrativo</i>	Post-Graduation Office
Denise Maria Ferreira da Silva	Sec. Education	<i>Técnico Profissional de 2ª classe</i>	Laboratories
João Filipe A. Malheiro	B. Education	<i>Auxiliar Técnico</i>	Laboratories
Jorge Manuel S.G. Paula	B. Education	<i>Auxiliar Técnico</i>	Laboratories
Maria Celina F. Barros	Sec. Education	<i>Auxiliar Técnico</i>	Laboratories
Maria Manuela S. Carneiro	B. Education	<i>Auxiliar Técnico</i>	Laboratories
Susana Isabel Vaz Santos	Sec. Education	<i>Auxiliar Técnico</i>	Laboratories
Maria Fernanda C. Fernandes	B. Education	<i>Auxiliar de Manutenção</i>	Laboratories

B = Basic

Lic. = "Licenciatura"

Sec. = Secondary

APPENDIX IV

Externally Funded Projects

List of the ongoing projects coordinated by ICVS' members (PIs) that have been approved for external funding.

1. "Cellular and molecular studies in the pathogenic fungi *Paracoccidioides brasiliensis*: Dimorphism and its regulation by steroid hormones"
Funding agency: FCT
Funding for the ICVS team: 61.980 Euros
Host Institution: ICVS, University of Minho
Duration: 3 years (2003-2006)
ICVS team: Fernando Rodrigues (PI)
2. "Involvement of sphingolipid signalling in chronological life-span and cell death in *Saccharomyces cerevisiae* - role of Isc1p sphingomyelinase"
Funding agency: FCT
Funding for the ICVS team: 13.400 Euros
Host Institution: Institute for Molecular and Cell Biology, University of Porto
Duration: 3 years (2003-2006)
ICVS team: Paula Ludovico (PI)
3. "A multidisciplinary study of invasive fungal infections in immunosuppressed patients: Host susceptibility to fungi versus fungi resistance to drugs"
Funding agency: FCT
Funding for the ICVS team: 44.445 Euros
Host Institution: ICVS, University of Minho
Duration: 3 years (2005-2008)
ICVS team: Fernando Rodrigues (PI)
4. "Paragens de fermentações alcoólicas – causas múltiplas e soluções integradas"
Funding agency: "Agência de Inovação/FCT"
Funding for the ICVS team: 74.184 Euros
Host Institution: Biology Centre, University of Minho
Duration: 3 years (2003-2006)
ICVS team: Cecília Leão (PI)
5. "Apoptotic pathway(s) in *Saccharomyces cerevisiae*: proteomic profile and metacaspase-interactive molecules"
Funding agency: FCT
Funding for the ICVS team: 69.500 Euros
Host Institution: ICVS, Minho University
Duration: 3 years (2005-2008)
ICVS team: Paula Ludovico (PI)
6. "Molecules and mechanisms involved in the recognition of molecular patterns of pathogenic microorganisms: Implications for the susceptibility to relevant public health infections"
Funding agency: Calouste Gulbenkian Foundation, *Programa de apoio à prevenção e rastreio de doenças infecciosas e oncológicas socialmente relevantes*
Funding for the ICVS team: 170.000 Euros
Host Institution: ICVS, University of Minho
Duration: 3 years (2003-2006)
ICVS team: Cecília Leão (PI)

7. “Biotechnological strategies to treat infectious diseases: intracellular targeting of antibiotics and oligonucleotides using liposomes”.
 Funding agency: “Agência de Inovação/FCT”
 Funding for the ICVS team: 105.000 Euros
 Host Institution: Bluepharma
 Duration: Duration: 3 years (2004-2006)
 ICVS team: Jorge Pedrosa (PI)
8. “Strategies to improve the therapeutic effect of anti-mycobacterial drugs”
 Funding agency: FCT
 Funding for the ICVS team: 20.876 Euros
 Host Institution: INETI
 Duration: Duration: 3 years (2005-2007)
 ICVS team: Jorge Pedrosa (PI)
9. “Zoonotic visceral leishmaniasis: Role of neutrophils and regulatory T cells in parasite persistence and in host immunity”
 Funding agency: FCT
 Funding for the ICVS team: 18.920 Euros
 Host Institution: IHMT/UNL
 Duration: 3 years (2005-2008)
 ICVS PI: Jorge Pedrosa
10. “The role of choroid plexus proteins in brain inflammation”
 Funding agency: FCT
 Funding for the ICVS team: 74.223 Euros
 Host Institution: ICVS, University of Minho
 Duration: 3 years (2005-2008)
 ICVS team: Joana Almeida Palha (PI)
11. “Characterization of the iodine status of Portuguese women in fertile age and its relation with the psychomotor performance of the newborn”
 Funding agency: FCT
 Funding for the ICVS team: 59.989 Euros
 Host Institution: ICVS, University of Minho
 Duration: 2005-2008
 ICVS team: Joana Almeida Palha (PI)
12. “Vitamins and hormones: linking environment and genes in psychiatric disorders?”
 Funding agency: FCT
 Funding for the ICVS team: 100.000 Euros
 Host Institution: ICVS, University of Minho
 Duration: 2 years 2005-2008
 ICVS team: Joana Almeida Palha (PI)
13. “Cognitive Modulation of Pain: interaction between the limbic system and the supraspinal pain control system”
 Funding agency: FCT
 Funding for the ICVS team: 90.000 Euros
 Host Institution: ICVS, University of Minho
 Duration: 3 years (2003-2006)
 ICVS team: Armando Almeida (PI)

14. “Aged and healthy brain: a multidisciplinary neurobiological approach to the aging brain”
 Funding agency: Calouste Gulbenkian Foundation
 Funding for the ICVS team: 105.000 Euros
 Host Institution: ICVS, University of Minho
 Duration: 3 years (2005-2008)
 ICVS team: Nuno Sousa (PI)
15. “Identification of changes in the protein expression of Brainstem, Hipoccampal and Amygdala and in associated emotional behavior induced by different periods of Chronic Neuropathic Pain along ageing”
 Funding agency: Calouste Gulbenkian Foundation
 Funding for the ICVS team: 48.615 Euros
 Host Institution: ICVS, University of Minho
 Duration: 2 years (2005-2007)
 ICVS PI: Armando Almeida
16. “Study of the role of molecular chaperones and of the ubiquitin-proteasome system in Machado-Joseph disease”
 Funding agency: FCT
 Funding for the ICVS team: 77.900 Euros
 Host Institution: ICVS, University of Minho
 Duration: 2005-2008
 ICVS team: Patrícia Maciel (PI)
17. “New aspects on coordinating limb bud development”
 Funding agency: FCT
 Funding for the ICVS team: 85.215 Euros
 Host Institution: ICVS, University of Minho
 Duration: 3 years (2003-2006)
 ICVS team: Isabel Palmeirim (PI).
18. Identification of molecular interactions in the chick “segmentation clock” using the yeast One-hybrid and two hybrid approaches.
 Funding agency: FCT
 Funding for the ICVS team: 90.000 Euros
 Host Institution: ICVS, University of Minho
 Duration: 3 years (2005 – 2008)
 ICVS team: Isabel Palmeirim (PI)
19. Integrating signals in embryogenesis: the case of somitogenesis in the chick
 Funding agency: FCT
 Funding for the ICVS team: 14 850 Euros
 Host Institution: Fundação da Faculdade de Ciências
 Duration: 3 years (2005 – 2008)
 ICVS team: Isabel Palmeirim (PI at the ICVS)
20. Desenvolvimento de técnicas endoscópicas para cirurgia abdominal transvisceral
 Funding agency: Sociedade Portuguesa de Endoscopia Digestiva
 Funding for the ICVS team: 9.000 Euros
 Host Institution: ICVS, University of Minho
 Duration: 2 years (2006-2007)
 ICVS PI: Jorge Correia-Pinto

21. Papel de Abordagem Transvesical na Cirurgia de 3^a Geração’
Funding agency: Associação Portuguesa de Urologia
Funding for the ICVS team: 4.000 Euros
Host Institution: ICVS, University of Minho
Duration: 2 years (2007-2008)
ICVS PI: Jorge Correia-Pinto
22. “Study of Molecular Predictive Factors of Chemotherapy Response in High-Grade Astrocytic Tumours”
Funding agency: (Schering-Plough Farma, Lda)
Funding for the ICVS team: 10.000 Euros
Host Institution: ICVS, University of Minho
Duration: 3 years (2004-2006)
ICVS team: Rui M Reis (PI)
23. “Mechanisms of Fetal Lung Development and Novel Therapeutic Approaches in Congenital Diaphragmatic Hernia”
Funding agency: FCT
Funding for the ICVS team: 80.150 Euros
Host Institution: ICVS, University of Minho
Duration: 3 years (2005-2008)
ICVS team: Jorge Correia-Pinto (PI)
24. “N-BNP na disfunção ventricular direita em Pediatria”
Funding agency: Sociedade Portuguesa de Cardiologia
Funding for the ICVS team: 10.000 Euros
Host Institution: ICVS, University of Minho
Duration: 3 years (2005-2006)
ICVS team: Jorge Correia-Pinto (PI)
25. “Papel do eixo Grelina-GH-IGFs no crescimento renal compensador após nefrectomia”
Funding agency: Associação Portuguesa de Urologia
Funding for the ICVS team: 8.000 Euros
Host Institution: ICVS, University of Minho
Duration: 3 years (2005-2006)
ICVS team: Jorge Correia-Pinto (PI)
26. “P-cadherin in Breast Cancer: what regulates its aberrant expression and how it can induce invasion of neoplastic cells?”
Funding agency: FCT
Funding for the ICVS team: 9.999 Euros (From 90.000 Euros)
Host Institution: Institute for Molecular Pathology and Immunology, University of Porto
Duration: 3 years (2005-2008)
ICVS team: Joana Paredes (PI at the ICVS)
27. “The role of stress in cortico-basal ganglia loop processing and instrumental conditioning”
Funding agency: Fundação Bial
Funding for the ICVS team: 45.000 Euros
Host Institution: ICVS, University of Minho
Duration: 2 years (2007-2008)
ICVS team: Nuno Sousa (PI)

28. “Initiatives in Science & Society”

Funding agency: EMBO Small Grants Scheme for initiatives in Science & Society

Funding for the ICVS team: 2.000 Euros

Host Institution: ICVS, University of Minho

Duration: 1 year (2006)

ICVS PI: Isabel Palmeirim

APPENDIX V

List of Scientific Production

List of Research Prices

List of participations in Academic Juries

III.1 Lists of the ICVS publications in 2006

(Note: in the lists below, ICVS members are underlined)

III.1.1 International Publications

A. Papers

1. Almeida A, Leite-Almeida H, Tavares I. Medullary Control of Nociceptive Transmission: reciprocal dual communication with the spinal cord. *Drug Disc Today: Dis Mech*, 3:305-312 (2006).
2. Almeida AJ, Matute D, Carmona JA, Martins M, Torres I, McEwen JG, Restrepo A, Leão C, Ludovico P, Rodrigues F. Genome size and ploidy of *Paracoccidioides brasiliensis* reveals a haploid DNA content: flow cytometry and GP43 sequence analysis. *Fungal Genet Biol*, in press.
3. Almeida AJ, Martins M, Carmona JA, Cano LE, Restrepo A, Leão C, Rodrigues F. New insights into the cell cycle profile of *Paracoccidioides brasiliensis*. *Fungal Genet Biol*, 43:401-409 (2006).
4. Almeida B, Sampaio-Marques B, Carvalho J, Silva MT, Leão C, Rodrigues F, Ludovico P. An atypical active cell death process underlies the fungicidal activity of Ciclopirox Olamine against the yeast *Saccharomyces cerevisiae*. *FEMS Yeast Research*, in press.
5. Alves VAF, Castelo A, Longatto-Filho A, Vianna MR, Taromaru E, Namiyama G, Lorincz A, Dores GB; DNA-Citoliq Working Group, São Paulo, Brazil. Performance of the DNA-Citoliq liquid-based cytology system compared with conventional smears. *Cytopathology*, 17:86-93 (2006).
6. Alves-Araújo C, Pacheco A, Almeida J, Spencer-Martins I, Leão C, Sousa MJ. Sugar utilization patterns and respire-fermentative metabolism in the Baker's yeast *Torulaspora delbrueckii*. *Microbiology*, in press.
7. Autorino R, Lima E: Editorial Comment. *Eur Urol*, in press.
8. Autorino R, Quarto G, De Sio M, Lima E, Quarto E, Oliviero R, Damiano R, Osório L, Marcelo F, D'Armiento M: The Fate of Abstracts presented at the world congresses of endourology are they followed by publication in peer-reviewed journals. *J Endourol*, in press.
9. Baltazar F, Cássio F, Leão C. Functional purification of lactate transporter of *Candida utilis*. *Biotech Lett*, 16:1221-6 (2006).
10. Baltazar F, Longatto Filho A, Pinheiro C, Moreira MAR, Queiroz GS, Oton GJB, Júnior AF, Ribeiro LFJ, Schmitt FC. Cyclooxygenase-2 (COX-2) and Epidermal Growth Factor Receptor (EGFR) expression in different histological subtypes of cervix carcinomas. *Int J Gynec Pathol*, in press.
11. Banerjee S, Reis-Filho JS, Ashley S, Steele D, Ashworth A, Lakhani SR, Smith IE. Basal-like breast carcinomas: clinical outcome and response to chemotherapy. *J Clin Pathol*, 7:729-35, (2006).
12. Baptista MJ, Recamán M, Melo-Rocha G, Nogueira-Silva C, Roriz JM, Soares-Fernandes J, Gonzaga S, Santos M, Leite-Moreira AF, Areias JC, Correia-Pinto J. Myocardium expression of Connexin 43, SERCA2a and myosin heavy chains isoforms are preserved in nitrofen-induced CDH rat model. *J Pediatr Surg*, 41:1532-1538 (2006).

13. Boonstra A, Rajsbaum R, Holman M, Marques R, Asselin-Paturel C, Pereira JP, Bates EE, Akira S, Vieira P, Liu YJ, Trinchieri G, O'Garra A. Macrophages and myeloid dendritic cells, but not plasmacytoid dendritic cells, produce IL-10 in response to MyD88- and TRIF-dependent TLR signals, and TLR-independent signals. *J Immunol*, 177:7551-8 (2006).
14. Botelho AS, Teixeira L, Correia da Costa JM, Faustino AMR, Castro AG, Vilanova M. *Neospora caninum*: High susceptibility to the parasite in C57BL/10 ScCr mice. *Exp Parasitol*, in press.
15. Burwick R, Ramsay P, Haines J, Hauser S, Oksenberg M, Pericak-Vance M, Schmidt S, Compston A, Sawcer S, Cittadella R, Savettieri G, Quattrone A, Polman C, Uitdehaag B, Zwemmer J, Hawkins C, Ollier W, Weatherby S, Enzinger C, Fazekas F, Schmidt H, Schmidt R, Hillert J, Thomas Masterman T, Hogg P, Niino M, Kikuchi S, Maciel P, Santos M, Rio ME, Kwiecinski H, akrezewska-Pniewska B, Evangelou N, Palace J, Barcellos L. APOE in Multiple Sclerosis Susceptibility and Disease Severity: Meta- and Pooled Analyses. *Neurology*, 66:1373-1383 (2006).
16. Camargo RS, Shirata NK, di Loreto C, Garcia EA, Castelo A, Longatto-Filho A. Significance of AgNOR measurement in thyroid lesions. *Anal Quant Cytol Histol*, 28:188-192 (2006).
17. Carvalho B, Buffart T, Reis RM, Mons T, Moutinho C, Silva P, Grabsch H, van de Velde C, Ylstra B, Meijer GA, Carneiro F. Mixed gastric carcinomas show similar chromosomal aberrations in both their diffuse and glandular components. *Cell Oncol*, 28:283-294 (2006).
18. Cerqueira JJ, Taipa R, Uylings HB, Almeida OF, Sousa N. Specific configuration of dendritic degeneration in pyramidal neurons of the medial prefrontal cortex induced by differing corticosteroid regimens. *Cereb Cortex*, in press.
19. Correia-Pinto J, Henriques-Coelho T, Roncon-Albuquerque Jr R, Leite-Moreira AF. Differential right and left ventricular diastolic tolerance to acute afterload and NCX gene expression in Wistar rats. *Physiol Res*, 55:513-526 (2006).
20. Costa MC, Magalhães P, Guimarães L, Maciel P, Sequeiros J, Sousa A. The CAG repeat at the Huntington disease gene in the Portuguese population: insights into its dynamics and to the origin of mutation. *J Hum Gen*, 51:189-195 (2006).
21. Costa MC, Teixeira-Castro A, Constante M, Magalhães M, Magalhães P, Cerqueira J, Matamá T, Santos M, Sequeiros J, Maciel P. Exclusion of mutations in the *PRNP*, *JPH3*, *TBP*, *ATN1*, *CREBBP*, *POU3F2* and *FTL* genes as a cause of disease in Portuguese patients with a Huntington-like phenotype. *J Hum Gen*, 51:645-651 (2006).
22. Costa MJ. Carbohydrate, a card game to teach the stereochemistry of carbohydrates. *J Chem Educ*, in press.
23. Costa S, Medeiros R, Schmitt F. DNA signalling/repair genetic polymorphisms and breast cancer risk: a review. *Appl Cancer Res*, in press.
24. Costa S, Pinto D, Pereira D, Vasconcelos A, Afonso-Lopes C, Osorio T, Lopes C, Medeiros R. Importance of xeroderma pigmentosum group D polymorphisms in susceptibility to ovarian cancer. *Cancer Lett*, 2006 [Epub ahead of print; May 3].
25. Costa S, Pinto D, Pereira D, Rodrigues H, Cameselle-Teijeiro J, Medeiros R, Schmitt F. DNA repair polymorphisms might contribute differentially on familial and sporadic breast cancer susceptibility: a study on a Portuguese population. *Breast Canc Res Treat*, in press.
26. Cruz A, Khader SA, Torrado E, Fraga A, Pearl JE, Pedrosa J, Cooper AM, Castro AG. Cutting edge: IFN-g regulates the induction and expansion of IL-17 producing CD4 T cells during mycobacterial infection. *J Immunol*, 177:1416-1420 (2006).

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28. Gomes AL, Bardales RH, Milanezi F, Reis RM, Schmitt F. Molecular analysis of Kit and PDGFRA in GISTs diagnosed by EUS. *Am J Clin Pathol*, in press.
29. Gontijo RC, Derchain SF, Roteli-Martins C, Braganca JF, Sarian LO, Morais SS, Maeda MY, Longatto-Filho A, Syrjanen KJ. Human papillomavirus (HPV) infections as risk factors for cytological and histological abnormalities in baseline PAP smear-negative women followed-up for 2 years in the LAMS study. *Eur J Obstet Gynecol Reprod Biol*, Jun 27; [Epub ahead of print].
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31. Henriques-Coelho T*, Gonzaga S*, Endo M, Zoltick PW, Davey M, Leite-Moreira AF, Correia-Pinto J, Flake AW. Targeted gene transfer to the developing rodent lung interstitium by ultrasound guided intraparenchymal injection. *Mol Ther*, in press.
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36. Longatto-Filho A, Baltazar F, Bedrossian C, Michel C, Schmitt FC. Immunohistochemical expression and distribution of VEGFR-3 in malignant mesothelioma. *Sem Diag Pathol*, in press.
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38. Longatto Filho A, Etlinger D, Pereira SMM, Kanamura CT, Di Loreto C, Santos GC, Makabe S, Marques J, Santoro C, Das Dores G, Castelo A. The association of p16ink4a and fragile histidine triad (FHIT) gene expression and cervical lesions. *J Low Genit Tract Dis*, in press.
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*Both authors contributed equally for the manuscript.

B. Book Chapters

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2. Goodman AB, McCaffery P, Palha JA, Simons C, Pardee A. Enhancement of brain retinoic acid levels. In: *Protein folding diseases: Mechanisms and therapeutic strategies*, Smith HJA, Simons C, Sewell RDE (Eds), London: Taylor and Francis Group, in press.
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C. Abstracts in Congresses

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10. Costa MC, Rodrigues A-J, Maciel P. Characterization of the ubiquitin hydrolase activity of mouse ataxin-3 and of its subcellular localization in skeletal muscle. *American Society of Human Genetics*, New Orleans, USA (2006)
11. Costa MJ. Integration and excitement in biochemistry - a link. *20th IUBMB International Congress of Biochemistry and Molecular Biology and 11th FAOBMB Congress*, Tokyo, Japan (2006).
12. Costa MJ. Book review: Advancing Faculty Learning Through Interdisciplinary Collaboration, E.G. Creamer, L.R. Lattuca, eds., Jossey-Bass, 2005. *The National Teaching & Learning Forum*, Vol 15 (5) (ISSN 1057-2880).
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17. Cruz A, Torrado E, Barroso A, Carmona J, Cooper A, Pedrosa J, Castro AG. IL-17 inhibits IFN-gamma inducing bactericidal activity on macrophages infected with mycobacteria. *1st Mediterranean Workshop on Clinical Immunology*. Évora, Portugal (2006).
18. Estevao-Lima E, Rolanda C, Pego J, Henriques-Coelho T, Silva D, Carvalho JL, Correia-Pinto J. Transvesical endoscopic peritoneoscopy: a novel 5 mm-port for intra-abdominal scarless surgery. *Annual SAGES meeting*, Dallas, USA (2006).
19. Estevao-Lima E, Rolanda C, Pego JM, Henriques-Coelho T, Silva D, Carvalho JL, Correia-Pinto J. Virtual Poster - Transvesical thoracoscopy: A natural orifice transluminal endoscopic approach for Thoracic Scarless Surgery. *24th World Congress on Endourology and SWL*, Cleveland, USA (2006).

20. Estevao-Lima E, Rolanda C, Pego JM, Henriques-Coelho T, Silva D, Carvalho JL, Correia-Pinto J. Transvesical endoscopic peritoneoscopy: A window for abdominal scarless surgery. *24rd World Congress on Endourology and SWL*, Cleveland, USA (2006).
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22. Ferro A, Carvalho A, Teixeira-Castro A, Almeida C, Tome R, Sequeiros J, Macedo-Ribeiro S, Maciel P. The Machado-Joseph disease protein ataxin-3 interacts with NEDD8. *American Society of Human Genetics*, New Orleans, USA (2006).
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47. Nunes S, Tinoco R, Sousa N, Bravo L. Padrões de consumo de drogas em adolescentes de uma escola do Porto. *17º Congresso da Sociedade Europeia de Pediatria Ambulatória e 9ª Reunião da Secção de Pediatria Ambulatória da Sociedade Portuguesa de Pediatria*, Coimbra, Portugal (2006).
48. Oliveira SM, Henriques-Coelho T, La Fuente-Carvalho F, Brandao-Nogueira A, Santos M, Correia-Pinto J, Leite-Moreira AF. Immunomodulatory effects of thymulin in monocrotalin-induced pulmonary hypertension. *Eur J Heart Fail*, 5 (Abstr. Suppl.): 168 (2006).
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55. Pedrosa J. Buruli ulcer: Disclosing host-parasite interactions in experimental infections. *1st Mediterranean Workshop on Clinical Immunology*, Évora, Portugal (2006).
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61. Reis-Filho J, Pinheiro C, Lambros M, Milanezi F, Carvalho S, Savage K, Simpson P, Jones C, Swift S, Mackay A, Reis RM, Hornick J, Pereira E, Baltazar F, Fletcher C, Ashworth A, Lakhani S, Schmitt F. EGFR amplification and lack of activating mutations in metaplastic breast carcinomas. *XXVI Congress of the International Academy of Pathology*, Montreal, Canada (2006).
62. Reis RM, Carvalho B, Amorim J, Suriano G, Ribeiro SA, Pardal F, Almeida R, Ylstra B. Array-based comparative genomic hybridisation analysis of astrocytic tumors occurring in a Li-Fraumeni Like Syndrome family. *10th European Workshop of Molecular Cytogenetics in Human Solid Tumours*, La Grande Motte, France (2006).
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64. Rodrigues A-J, Coppola G, Santos C, Costa MC, Aillion M, Sequeiros J, Geschwind DH, Maciel P. Absence of ataxin-3 causes transcriptomic de-regulation of the ubiquitin-proteasome pathway, signal transduction, transcription regulation, and cell-structure/motility genes in *C.elegans*. *American Society of Human Genetics*, New Orleans, USA (2006).
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66. Rolanda R, Lima E, Pego J, Henriques-Coelho T, Silva D, Moreira I, Macedo G, Carvalho JL, Correia-Pinto J. Third generation cholecystectomy by natural orifices: transgastric and transvesical combined approach. *Am J Gastroenterol*, 101:511 (2006).
67. Salgado AJ, Mesquita AR, Neves NM, Reis RL, Davies JE, Sousa N. Interactions Between Human Umbilical Cord Perivascular Cells (HUCPVCs) and Glial Cells: Role of Conditioned Medium on Cell viability and Proliferation. *ESF - EMBO Symposium on Stem Cells in Tissue Engineering: Isolation, Culture, Characterization and Application*, Barcelona, Spain (2006).
68. Salgado AJ, Mesquita AR, Neves NM, Reis RL, Davies JE, Sousa N. Interactions Between Human Umbilical Cord Perivascular Cells (HUCPVCs) and Glial Cells: the role of paracrine factors released into conditioned medium. *ABCAM Symposium on Stem Cells*, CanCun, Mexico, (2006).
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70. Sampaio P, Santos M, Correia A, Castro G, Pedrosa J, Pais C. Virulence studies of *Candida albicans* recurrent isolates in a mouse model of infection. *Keystone Meeting*. Denver, USA (2006).

71. Santos M, Coutinho AM, Yan J, Yang C, Feng J, Vicente A, Temudo T, Sommer S, Maciel P. Analysis of the 3' UTR of the *MECP2* gene in patients with clinical diagnosis of Rett syndrome and mental retardation. *American Society of Human Genetics*, New Orleans (2006).
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73. Santos TC, Marques AP, Silva S, Mano JF, Castro AG and Reis RL. *In vitro* evaluation of the behaviour of polymorphonuclear neutrophils in direct contact with chitosan-based membranes. *6th European Symposium on Biochemical Engineering Science*, Áustria (2006).
74. Silva R, Sousa N. Influence of depressive-like behaviour in adult neurogenesis and apoptosis. *1st International Meeting of the Portuguese Society for Stem Cells and Cell Therapies*, Madeira, Portugal (2006).
75. Silva-Fernandes A, Costa MC, Maciel P. Somatic and intergenerational instability of expanded CAG repeat in a transgenic mouse model of Machado-Joseph disease. *FENS*, Vienna, Austria (2006).
76. Silva-Fernandes A, Costa MC, Franco-Duarte R, Oliveira P, Maciel P. CAG repeat instability and motor deficit in a transgenic mouse model of Machado-Joseph disease. *American Society of Human Genetics*, New Orleans, USA (2006).
77. Soares MJ, Macedo A, Valente J, Cabral A, Pato M, Pato C, Palha JA, Azevedo MH. Sintomas Positivos/Negativos numa amostra Portuguesa de doentes esquizofrénicos. *2nd Lisbon Meeting on Schizophrenia*. Lisbon, Portugal (2006).
78. Sousa JC, Costa MJ, Palha JA. Hormone mediated nuclear effects and bioinformatics: learning one from the other. *ASBMB Annual Meeting*, San Francisco, USA (2006).
79. Sousa JC, Marques F, Ferreira ED, Sousa N, Palha JA. Transthyretin and choroid plexus in Alzheimer's disease. *Gordon Research Conference, Barriers of the CNS*, Tilton, USA (2006).
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81. Teixeira-Castro A, Maciel P, Morimoto R. Pathological ataxin-3 misfolding in *C. elegans*. *11th Annual Midwest stress response and chaperone conference*, Evanston, USA (2006).
82. Torrado E, Fraga AG, Castro AG, Pedrosa J. TNF plays a protective role in infections by *Mycobacterium ulcerans*. *1st Mediterranean Workshop on Clinical Immunology*, Évora, Portugal (2006).
83. Vieira A, Lamas N, Valle-Fernandes A, Baltazar F, Reis RM, Almeida A, Lima-Rodrigues M. From neurogenic inflammation to laryngeal cancer: possible therapeutic effects of COX-2 inhibitors. *YES Meeting 2006*, Porto, Portugal (2006).

D. Further International Publications

1. Almeida OFX, Condé Gl, Sousa N. Oestrogen Regulation Of Sexual Behaviour, Mood And Cognition. In: “*Encyclopedia of Life Sciences*”, Article 101. Nature Macmillan/Wiley, *in press*.
2. Costa MJ (2006). *Book review*: Advancing Faculty Learning Through Interdisciplinary Collaboration, E.G. Creamer, L.R. Lattuca, eds., Jossey-Bass, 2005. The National Teaching & Learning Forum, Vol 15 (5) (ISSN 1057-2880).

III.1.2 National Publications

A. Papers

1. Henriques-Coelho T, Roncon-Albuquerque R, Lourenco AP, Baptista MJ, Oliveira SM, Brandao-Nogueira A, Correia-Pinto J, Leite-Moreira AF. Ghrelin reverses molecular, structural and hemodynamic alterations of the right ventricle in pulmonary hypertension. *Rev Port Cardiol*, 25:55-63 (2006).
2. Lima-Rodrigues M, Baltazar F, Lamas N, Pinheiro J, Valle-Fernandes A, Nunes R, Reis RM, Milanezi F, Almeida A. Os inibidores da COX-2 podem ser importantes no tratamento da laringe crónica. *Rev Port Otorrin*, 44:273-278 (2006).
3. Nogueira-Silva C, Bulhões C, Ferreira D, Magalhães MJ, Peixoto V. Qualidade do controlo da diabetes mellitus tipo 2 numa amostra de utentes do Centro de Saúde de Braga. *Rev Port Clin Geral*, 22:571-582 (2006).
4. Nunes S, Maia I, Faria MS, Silva H, Jordão MJ, Mota C, Costa T, Pereira E. Síndrome do gene contíguo TSC2/PKD1. *Rev Port Nefrol*, *in press*.
5. Osório L, Palmeirim I. Malformações no desenvolvimento embrionário da coluna vertebral: a importância do relógio molecular. *Viver Saúde*, 1:14-22 (2006).
6. Palácios A, Lima E, Versos R, Massó P, Louro N, Vila F, Osório L, Soares J, Marcelo M: Nefrolitotomia percutânea: Casuística do Hospital Geral de Santo António. *Acta Urol Port*, 23:57-60 (2006).
7. Pascoal S and Palmeirim I. Desenvolvimento embrionário dos membros do vertebrados e suas malformações congénitas. *Acta Pediátr Port*, *in press*.
8. Rolanda R, Lima E, Pêgo J, Henriques-Coelho T, Silva D, Carvalho JL, Macedo G, Correia-Pinto J. Estudos pré-clínicos para o desenvolvimento de técnicas endoscópicas para cirurgia transvisceral. *EndoNews*, 15:28 (2006).

B. Book Chapters

1. Andrade RP, Palmeirim I. Desenvolvimento embrionário: uma questão de RNA in O mundo do RNA – Editora Lidel, *in press*

Additionally, 40 communications (posters) in National Congresses were presented.

C. Conferences, Seminars and other Communications

1. Almeida A. “Cronificação da Dor”. Workshop *Evolução da Dor Aguda para Dor Crónica*, in the Congresso *Oncoanestesia 2006*, Lisboa, Portugal (2006).
2. Almeida A. “Pain Perception”. Workshop *Fibromyalgia*, 2nd edition of the *Curso de Mestrado em Ciências do Sono*, Lisboa, Portugal (2006).
3. Almeida A. “Fisiopatologia da Dor”. Workshop *1º Encontro de Internos – Abordagem Multidisciplinar da Dor*, Lisboa, Portugal (2006).
4. Almeida A. “O que há de novo na Dor?”. Workshop *O que há de novo na Dor?, IV Congresso Português de Reumatologia*, Ponta Delgada, Açores, Portugal (2006).
5. Almeida A. “Anatomia e Fisiopatologia da Dor”. *Cancer Pain, Post-Graduation Course*, Grunenthal Foundation, Lisboa, Portugal (2006).
6. Almeida A. “Anatomia e Fisiopatologia da Dor”. *Skeletal and Muscle Pain, Pos Graduation Course*, Grunenthal Foundation, Lisboa, Portugal (2006).
7. Andrade RP. “A limb molecular clock operates during proximal-distal limb outgrowth in the chick embryo”. *Cells into Organs European Network of Excellence plenary meeting*, Cambridge, UK (2006).
8. Andrade RP. “Identification of molecular interactions in the chick segmentation clock using the Yeast Two-Hybrid approach”. *XV National Congress of Biochemistry*, Aveiro, Portugal (2006).
9. Bajanca F. “Integrin $\alpha\beta 1$ -laminin interactions regulate early myotome formation in the mouse embryo”. *Sociedade Portuguesa de Microscopia Meeting*, Braga, Portugal (2006).
10. Baptista MJ. “A criança, o desporto e a doença cardiovascular”. Workshop *Problemas de Cardiologia no Consultório de Pediatria*. Aprender Pediatria. Porto, Portugal (2006).
11. Baptista MJ. “Abordagem Clínica e Diagnóstica”, workshop *O RN com Cardiopatia Congénita, IX Jornadas de Cardiologia Pediátrica*, Porto, Portugal (2006).
12. Baptista MJ. “Avanços em Cardiologia Pediátrica: Terapêutica Fetal e Neonatal das Cardiopatias Congénitas”. Workshop *Avanços em Cardiologia Pediátrica, Congresso Português de Cardiologia*, Vilamoura, Portugal (2006).
13. Baptista MJ. “Marcadores Bioquímicos de Prognóstico”. *II Encontro de Hipertensão Pulmonar em Pediatria*, Cúria, Portugal (2006).
14. Baptista MJ. “Abordagem da paragem cardíaca”. Course *Urgências e emergências em ortodontopediatria*, Faculdade de Medicina Dentária da Universidade do Porto, Porto, Portugal (2006).
15. Baptista MJ. “NT-proBNP e disfunção ventricular direita: um novo marcador de prognóstico em RN com HDC”. *Reunião do Serviço de Cirurgia Pediátrica*, Departamento de Pediatria do Hospital de S. João, Porto, Portugal (2006).
16. Correia-Pinto J. “Enterocolite necrosante: Estado da Arte”. Congress of the *Sociedade Portuguesa de Cirurgia Pediátrica*, Évora, Portugal (2006).
17. Correia-Pinto J. “Factores de prognóstico e tratamento fetais na HDC”. *Jornadas de Ginecologia-Obstetrícia Hospital Dona Estefânia*, Lisboa, Portugal (2006).
18. Correia-Pinto J. “Inovação em Cirurgia Pediátrica: Que futuro?”. *Jornadas do Hospital S João ‘Aprender Pediatria’*, Porto, Portugal. (2006).
19. Correia-Pinto J. “Terapia pulmonar fetal”. *Reunião da Secção de Pneumologia Pediátrica*, Porto, Portugal (2006).

20. Correia-Pinto J. “Conduta pós-natal na hérnia diafragmática congénita”. *Curso sobre Óxido Nítrico Inalado no Recém-Nascido*, Óbidos, Portugal (2006).
21. Correia-Pinto J. “Fisiopatologia da hérnia diafragmática congénita: Investigação de translação”. *Curso Intensivo de Cirurgia Pediátrica*, Coimbra, Portugal (2006).
22. Costa, MJ. “Teaching Science, improving skills?”. *Curso Prático para Professores do Ensino Secundário: da Ciência à Medicina*, IBMC, Porto, Portugal (2006).
23. Costa, MJ. “Making teaching student centred: biomedicine as an example”. *Curso Prático para Professores do Ensino Secundário: da Ciência à Medicina*, IBMC, Porto, Portugal (2006).
24. Costa, MJ. “Europe, Life Sciences and teaching” (panel). *Curso Prático para Professores do Ensino Secundário: da Ciência à Medicina*, IBMC, Porto (Portugal).
25. Costa, MJ. “Ensino experimental, saúde e ambiente” (panel) – *National debate on education*, IBMC, Porto, Portugal (2006).
26. Costa, MJ. “Diferentes locais, médicos iguais?” (Panel), Workshop organized by the *Núcleo de Estudantes de Medicina da Faculdade de Medicina da Universidade de Coimbra*, Faculty of Medicine, Coimbra, Portugal (2006).
27. Estêvão-Lima. “Prostatectomia Radical Laparoscópica: Experiência inicial do Serviço de urologia do Hospital Geral de Santo António”. *Simpósio de Urologia*, Albufeira, Portugal (2006).
28. Estêvão-Lima. “Vaporização Prostática Laser por laser KTP: Experiência do Serviço de Urologia do Hospital Geral de Santo António”. *Simpósio de Urologia*, Albufeira, Portugal (2006).
29. Estêvão-Lima. “Peritoneoscopia endoscópica transvesical: Uma nova porta para cirurgia abdominal sem cicatrizes”. *Congresso Português de Cirurgia*, Lisboa, Portugal (2006).
30. Gonçalves O, Klein J, Gonçalves A, Palha J, Cerqueira J, Sousa N. “Autobiographical Memory and the process of Ageing”. *VI Simpósio Nacional de Investigação em Psicologia*, Painel Aged and healthy brain: from neurobiology and neuropathology to neuropsychology of the aging brain, Évora, Portugal (2006).
31. Klein J, Peixoto T, Gonçalves O, Cerqueira J, Palha J, Sousa N. “Executive Functions and the changes with the process of ageing”. *VI Simpósio Nacional de Investigação em Psicologia*, Painel Aged and healthy brain: from neurobiology and neuropathology to neuropsychology of the aging brain, Évora, Portugal (2006).
32. Longatto-Filho A. “Investigação Citológica em pacientes com lesões cancerosas e pré-cancerosas”, *Pós-graduação da Secretaria do Estado de São Paulo*, São Paulo, Brazil (2006).
33. Longatto-Filho A. “Curso de citologia dos derrames cavitários”, *Sociedade Portuguesa de Citologia*, Évora, Portugal (2006).
34. Longatto Filho A, Pinheiro C, Pereira SMM, Etlinger D, Baltazar F, Schmitt FC. “Lymphatic vessel density in HPV-induced intraepithelial cervical lesions”, HPV and Cancer International Meeting, Turin, Italy (2006).
35. Nunes S. “Doença Celíaca no Minho - estudo multicêntrico de 10 anos”. *XXVIII Simpósio Minhoto-Galaico de Pediatria Extra-Hospitalar*, Ofir, Portugal (2006).
36. Nunes S. “Streptococco do Grupo B – Rastreio na grávida e profilaxia da Infecção Neonatal”. *Sessões de Internato Médico*, Auditório do Hospital São Marcos, Braga, Portugal (2006).
37. Osório L. Etude de la crête neurale caudale chez l’embryon de poulet. Séminaires du Vendredi – UPMC CNRS UMR 7622. UPMC – April 28, 2006. Campus de Jussieu, Paris, France.
38. Osório L. Pourquoi n’y a t-il pas de racines dorsales émergeant du tube neurale caudal? 88ème Congrès de l’Association des Morphologistes. May 11-13, 2006. Nantes, France.

39. Osório L. Etude de la crête neurale caudale chez l'embryon de poulet. Club des Doctorans – UPMC CNRS UMR 7622. UPMC – November 30, 2006. Campus de Jussieu, Paris, France.
40. Palha J, Cerqueira J, Klein J, Gonçalves O, Sousa N. “The endocrine function and cognitive performance in the elderly”. *VI Simpósio Nacional de Investigação em Psicologia*, Painel Aged and healthy brain: from neurobiology and neuropathology to neuropsychology of the aging brain, Évora, Portugal (2006).
41. Palmeirim I. “Counting time for embryonic segment formation”. *V Encontro do Fórum Internacional de Investigadores Portugueses*, Cronobiology session, Porto, Portugal (2006).
42. Palmeirim I. “A molecular clock operates during proximal-distal limb outgrowth in the chick embryo”. *First and founding meeting of the European Society for Developmental Biology*, Prague, Czech Republic (2006).
43. Palmeirim I. “Discovering an embryonic molecular clock”. *Next generation Science Program*, University College of London, London, UK. (2006)
44. Palmeirim I. “Discovering an embryonic molecular clock”. *Pediatric Department of São João Hospital*, Porto, Portugal, (2006).
45. Palmeirim I. “Molecular basis of time control during embryonic development”. *Winter Series Seminars at IBMC/INEB*, IBMC, Porto, Portugal (2006).
46. Paredes J. “P-caderina – sua importância na carcinogénese e progressão do cancro da mama”. *Centro de Investigação de Patobiologia Molecular*, Instituto Português de Oncologia de Lisboa, Portugal (2006).
47. Paredes J. “A utilização das células estaminais no tratamento do Cancro”. *Ordem dos Farmacêuticos da Região Norte*, Porto, Portugal (2006).
48. Pascoal S. “A molecular clock is operating in limb chondrogenic precursor cells during chick limb bud development”. *Mineralised Tissue formation, regeneration, and repair*, Oeiras, Portugal (2006).
49. Pascoal S. “A cellular molecular clock is ticking during proximo-distal limb outgrowth”. *The Portuguese Society for Development Biology*, Oeiras, Portugal (2006).
50. Pinheiro C, Longatto-Filho A, Ferreira L, Scapulatempo C, Alves V, Milanezi F, Schmitt F, Baltazar F. “Characterization of monocarboxylate transporter expression in colorectal carcinoma”, XXI Congresso da Sociedade Portuguesa de Microscopia, Braga, Portugal (2006).
51. Reis RM. “Molecular Characterization of Brain Tumors”. *Centro de Investigação de Patobiologia Molecular*, Instituto Português de Oncologia, Lisboa, Portugal (2006).
52. Reis RM. “*Base Moleculares de Gliomas*”, Master in Neurosciences of Faculdade de Medicina da Universidade Clássica de Lisboa. Lisbon, Portugal (2006).
53. Reis RM. “A biologia Molecular na Decisão Terapêutica Complementar dos Gliomas”. *2º Congresso da Sociedade Portuguesa de Radioterapia Oncológica*, Vila Nova de Gaia, Portugal (2006).
54. Reis RM. “A importância da biologia molecular para o diagnóstico correcto dos doentes com tumores cerebrais”. *Reunião da Primavera da Associação Portuguesa de Neuro-Oncologia*, Cascais, Portugal (2006).
55. Reis RM. “Microarrays – Considerações Técnicas”. *VII Jornadas Internacionais de Diagnóstico Pré-Natal*, Coimbra, Portugal (2006).
56. Reis RM. “Alterações moleculares nos Tumores do SNC, presente e futuro”. *Reunião da Outono da Associação Portuguesa de Neuro-Oncologia*, Vila Nova de Gaia, Portugal (2006).

57. Rolanda C. “Como Acompanhar Clinicamente um Doente Cirrótico. *I Jornadas de Hepatologia do Hospital de São Marcos*, Braga, Portugal (2006).
58. Rolanda C. “Doença de Refluxo Gastro-esofágico - A Clínica Clássica e Manifestações Extra-esofágicas”. *I Jornadas de Gastrenterologia do Hospital de São Marcos*, Braga, Portugal (2006).
59. Rolanda C. “Doenças de Sobrecarga Hepática de Ferro”. Reunião do *Internato Médico* do Hospital de São Marcos, Braga, Portugal (2006).
60. Rolanda C. Gastrites, Metaplasias e Endoscopias de Repetição. *I Jornadas de Gastrenterologia do Hospital de São Marcos*, Braga, Portugal (2006).
61. Rolanda C. “O que Significa ter Hepatite C”. *I Jornadas de Hepatologia do Hospital de São Marcos*, Braga, Portugal (2006).
62. Sousa N, Palha J, Cerqueira J, Klein J, Gonçalves O. “The morphological markers and cognitive performance of Ageing”. *VI Simpósio Nacional de Investigação em Psicologia*. Painel Aged and healthy brain: from neurobiology and neuropathology to neuropsychology of the aging brain, Évora (2006).

III.2 2006 International Papers: number and Journal Impact factors

JOURNAL	IF	n
<i>Nat Genet</i>	25.80	1
<i>PLoS Medicine</i>	8.39	1
<i>Drug Discovery Today</i>	7.76	1
<i>FASEB J</i>	7.06	1
<i>Biol Psych</i>	6.78	1
<i>Mol Biol Cell</i>	6.52	1
<i>Brain Res Rev</i>	6.40	1
<i>J Immunol</i>	6.39	2
<i>J Pathol</i>	6.21	1
<i>Cereb Cortex</i>	6.18	1
<i>Clin Cancer Res</i>	5.72	1
<i>Mol Ther</i>	5.44	1
<i>Neurobiol Aging</i>	5.31	1
<i>J Mol Biol</i>	5.23	1
<i>Neurology</i>	5.07	2
<i>Eur J Immun</i>	4.88	1
<i>Int J Cancer</i>	4.70	1
<i>Breast Canc Res Treat</i>	4.64	1
<i>Cell Oncol</i>	4.16	1
<i>Genes Brain Behav</i>	4.09	3
<i>Infect Immun</i>	3.93	1
<i>Gastrointest Endosc</i>	3.92	2
<i>J Urol</i>	3.59	1
<i>Exp Neurol</i>	3.77	1
<i>Am J Physiol Heart Circ Physiol</i>	3.56	1
<i>Eur Urol</i>	3.54	1
<i>Am J Med Genet Part B</i>	3.52	1
<i>Fungal Genet Biol</i>	3.50	2
<i>Neuroscience</i>	3.41	2
<i>J Psychiatr Res</i>	3.30	2
<i>Synapse</i>	3.22	1
<i>Microbiology</i>	3.17	1
<i>Cancer Lett</i>	3.05	1
<i>Biochem Biophys Res Commun</i>	3.00	1
<i>Am J Clin Pathol</i>	2.94	1
<i>Pediatr Res</i>	2.88	2
<i>Behav Brain Res</i>	2.87	1
<i>J Neuroimmunol</i>	2.82	1

<i>Exp Eye Res</i>	2.70	1
<i>Histopathology</i>	2.61	1
<i>FEMS Yeast Res</i>	2.48	2
<i>Brain Res</i>	2.30	1
<i>Virchows Arch</i>	2.22	1
<i>J Clin Pathol</i>	2.17	1
<i>Urology</i>	2.14	1
<i>Horm Metab Res</i>	2.05	1
<i>Int J Devel Biol</i>	2.05	1
<i>J Hum Gen</i>	1.98	2
<i>Epilep behav</i>	1.94	1
<i>Int J Gynecol Pathol</i>	1.82	2
<i>Anat Rec – Part A</i>	1.81	1
<i>Physiol Res</i>	1.81	1
<i>Gene Expr Patterns</i>	1.79	1
<i>J Endourol</i>	1.50	1
<i>Int J Gynecol Cancer</i>	1.43	2
<i>Appl Immunohistoch Mol Morphol</i>	1.41	1
<i>Paras Immunol</i>	1.41	1
<i>Exp Parasitol</i>	1.31	1
<i>Eur J Obstet Gynecol Reprod Biol</i>	1.14	1
<i>J Pediatr Surg</i>	1.13	2
<i>Biotech Lett</i>	1.11	1
<i>Sem Diag Pathol</i>	1.04	1
<i>Acta Cytol</i>	1.02	1
<i>Diag Cytopathol</i>	0.99	1
<i>Int J Dermatol</i>	0.94	1
<i>Fetal Diagn Ther</i>	0.89	1
<i>Cytopathology</i>	0.83	1
<i>Anal Quant Cytol Histol</i>	0.62	1
<i>J Chem Educ</i>	0.51	1
<i>Appl Cancer Res</i>		2
<i>DST J Bras Doenças Sex Transm</i>		1
<i>Curr Stem Cell Res Ther</i>		1
<i>J Low Genit Tract Dis</i>		1
	TOTAL	88

n – number of papers published including those *in press* in 2006

Impact Factors of 2005, according to Journal Citation Reports

III.3 Research Prizes

Internal ICVS Prizes

- Annual Prize to the ICVS Research Domain that published the paper in the International Journal with highest IF: “Neurosciences”; Biological Psychiatry, IF= 6.78
- Annual Prize to the ICVS Domain with the highest Total IF per PhD member: “Neurosciences”; Total IF= 7.81

External Prizes

In 2006, the ten prizes listed below were awarded to researchers of the ICVS.

1. “Prémio Pfizer /Sociedade de Ciências Médicas de Lisboa” -Bolsa Pfizer de Investigação em Oncologia e Doenças Oncológicas, Prof. Francisco Gentil, attributed to Reis RM (2006).
2. “Prize Grünenthal Pain – Clinical Study”, with the study “Gabapentin associated to Ropivacaine significantly improves pain control and quality of life of trigeminal neuralgia patients”, by Lemos L, Flores S, Oliveira P, Almeida A (2006).
3. “Excellence Prize in Immunology Mário Arala Chaves”, with the study “Th17 cells inducing a massive recruitment of neutrophils may play a role in Koch’s reaction.” Cruz A, Fraga A, Torrado E, Cooper AM, Pedrosa J and Castro AG. (2006).
4. “Prize for best poster presented at II Simpósio Nacional de Citocinas” with the study “IL-17 producing CD4 T cells induced during Mycobacterial infection are regulated by IFN-gamma.” Cruz A, Khader SA, Torrado E, Fraga A, Pearl JE, Pedrosa J, Cooper AM and Castro AG. (2006).
5. “Prémio Hemoportugal de Ecocardiografia 2006”. Attributed by the Portuguese Society of Cardiology to the best original study in echocardiography for the work: "*Avaliação da disfunção ventricular direita no recém-nascido com hipertensão pulmonar secundária a hérnia diafragmática congénita*" by Maria João Baptista, Rocha G, Clemente F, Azevedo L, Guimarães H, Areias JC, Correia-Pinto J (2006).
6. “Student Research Award” by Society for Pediatric Research 2006. Attributed to Gonzaga S with the study “*FGF-10 Gene Transfer to the Fetal Lung Induces CCAM-like Lesions*” Gonzaga S, Henriques-Coelho T, Davey M, Zoltick PW, Leite-Moreira AF, Hedrick H, Correia-Pinto J, Flake AW. Presented at PAS Annual Meeting. 29 de Abril a 02 de Maio. San Francisco, Califórnia, USA (2006).
7. “1º Prémio da Área Básica JOCEM 2006”. Attributed to Nogueira-Silva C with the study “*A interleucina-6 é constitutivamente expressa durante a morfogénese pulmonar e regula a ramificação pulmonar fetal in vitro*” by Nogueira-Silva C, Santos M, Baptista MJ, Moura RS, Correia-Pinto J. IX Jornadas Científicas dos Estudantes de Medicina (JOCEM). 29 de Abril, Aula Magna da FMUP, Porto (2006).

8. “2° Prémio da Área Clínica JOCEM 2006” with the study “Qualidade do controlo da diabetes mellitus tipo 2 numa amostra de utentes do Centro de Saúde de Braga” by Bulhões C, Nogueira-Silva C, Ferreira D, Magalhães MJ, Peixoto V. IX Jornadas Científicas dos Estudantes de Medicina (JOCEM). 29 de Abril, Aula Magna da FMUP, Porto, (2006)
9. 1° Prémio da Área Clínica JOCEM 2006. Atributed to Figueiredo L and Costa V by the work “Role of TP53 codon 72 polymorphism in glioma tumors risk” by Lima-Ramos V, Pacheco-Figueiredo L, Costa S, Pardal F, Lopes JM, Reis RM. IX Jornadas Científicas dos Estudantes de Medicina (JOCEM). 29 de Abril, Aula Magna da FMUP, Porto, (2006).
10. “1st Prize in Oncology Section”, YES Meeting 2006. Atributed to Lima-Ramos V, Pacheco-Figueiredo L, by the work “Association of TP53 codon 72 polymorphism with glioma tumors risk”. Lima-Ramos V, Pacheco-Figueiredo L, Martinho O, Costa S, Pardal F, Lopes JM, Reis RM. YES (Young European Scientist) Meeting, 21-23 Setembro, Porto, Portugal, (2006).

III.4 Participation in Academic Juries

1. Almeida A. Jury member (*opponent*) of the PhD thesis in Human Biology of Ana Rita Fernandes Barros Castro – “Expression of NK1 and GABA_B receptors in nociceptive neurons of the spinal cord: modulatory actions from the endogenous pain control system”, Faculty of Medicine, University of Porto.
2. Baltazar F. Jury member for the PhD Degree in Health Sciences of Sofia Rodrigues – “Spatio-temporal control of the early stages of somitogenesis of the chick embryo”, School of Health Sciences, University of Minho.
3. Castro A, Jury member (*opponent*) for the PhD Degree in Medical Sciences of Dinis Calado – “GFP tagged IL-10 knock-in mice”, Faculty of Medicine, University of Lisbon.
4. Correia-Pinto J, Jury member for the PhD Degree in Health Sciences (Biological and Biomedical Sciences) of Marta Santos – “Mechanisms of lung development in normal and hypoplastic lungs”, School of Health Sciences, University of Minho.
5. Correia-Pinto J, Jury member for the PhD Degree in Health Sciences (Biological and Biomedical Sciences) of Susana Pascoal “New aspects in coordination of vertebrate limb bud development”, School of Health Sciences, University of Minho.
6. Costa, MJ. Jury member (*opponent*) of the Master Degree in Teaching of Biology of Nuno Ribeiro – “Laboratório Virtual de Biotecnologia. Proposta de Abordagem dos Recentes Avanços Tecnológicos e Respetivas Implicações Éticas Numa Perspectiva Investigativa no Ensino da Biologia”, Faculty of Sciences, University of Porto.
7. Leão C, Jury member for the PhD Degree in Veterinary Sciences of Maria de São José Centeno, Faculty of Veterinary Medicine, Technical University of Lisbon.
8. Leão C, Jury member for the PhD Degree in Biological and Biomedical Sciences of Susana Pascoal, School of Health Sciences, University of Minho.
9. Leão C, Jury member for the PhD Degree in Biological and Biomedical Sciences of Marta Santos, School of Health Sciences, University of Minho.

10. Leão C, Jury member for the PhD Degree in Biological and Biomedical Sciences of Sofia Cristovão, School of Health Sciences, University of Minho.
11. Leão C, Jury member for the PhD Degree in Biotechnology of Tânia Simões, Technical Superior Institute, Technical University of Lisbon.
12. Leão C, Jury member for the PhD Degree in Microbiology of Jorge Anjos, Faculty of Sciences and Technology, University “Nova” of Lisbon.
13. Leão C, Jury member for the PhD Degree in Biological and Biomedical Sciences of João Cerqueira, School of Health Sciences, University of Minho.
14. Leão C, Jury member for the Master Degree in Molecular Microbiology of Júlia Santos, University of Aveiro.
15. Leão C, Jury member for the PhD Degree in Biological and Biomedical Sciences of Maria de Fátima Duarte, School of Health Sciences, University of Minho.
16. Leão C, Jury member for the Master Degree of Sara Andrade, Faculty of Nutrition Sciences, University of Porto.
17. Longatto-Filho A. Jury member for the PhD Degree in Health Sciences of Jorge Sérgio Reis Filho – “Patologia Molecular do Cancro da Mama: A solucionar Enigmas”, School of Health Sciences, University of Minho.
18. Longatto-Filho A. Jury member for the PhD Degree in Health Sciences of Maria de Fátima Pereira Duarte – “Mechanisms utilized by growth factors and cytokines in angiogenesis: role of thrombin in the cross-talk between the FGF1 and Notch signalling pathways”, School of Health Sciences, University of Minho.
19. Longatto-Filho A. Jury member for the PhD Degree of Paula Andréa Gabrielli Fregonexi – “p16 and oral cancer lesions”, Universidade Estadual Paulista (UNIFESP), Araraquara, SP, Brazil.
20. Palha JA. Jury member of the PhD thesis in Human Biology of Ana Rita Fernandes Barros Castro – “Expression of NK1 and GABA_B receptors in nociceptive neurons of the spinal cord: modulatory actions from the endogenous pain control system”, Faculty of Medicine, University of Porto.
21. Palha JA. Jury member of the PhD thesis in in Biomedical Sciences of João José Cerqueira – “The prefrontal cortex: insights into its functional and structural organization following chronic stress”, School of Health Sciences, University of Minho.
22. Palmeirim I. Jury member (*opponent*) for the PhD Degree of Maria de Fátima Pereira Duarte – “Mechanisms utilized by growth factors and cytokines in angiogenesis: role of thrombin in the cross-talk between the FGF1 and Notch signalling pathways”, School of Health Sciences, University of Minho.
23. Palmeirim I. Jury member (*opponent*) for the PhD Degree of Vanessa Zuzarte Luís – “Identificación y caracterización funcional de nuevos genes implicados em el control de la muerte celular interdigital”, Universidad de Cantabria, Santander, Spain.
24. Palmeirim I. Jury member for the PhD Degree in Health Sciences of Marta Alexandra Ribeiro dos Santos – “Mechanisms of lung development in normal and hypoplastic lungs”, School of Health Sciences, University of Minho.
25. Palmeirim I. Jury member for the PhD Degree in Health Sciences of Susana Alexandra Rodrigues Pascoal – “New aspects in coordination of vertebrate limb bud development”. School of Health Sciences, University of Minho.

26. Palmeirim I. Jury member for the PhD Degree in Health Sciences of Sofia Rodrigues – “Spatio-temporal control of the early stages of somitogenesis of the chick embryo”, School of Health Sciences, University of Minho.
27. Pedrosa J. Jury member for the PhD Degree in Biomedical Sciences of Helena Soares – “Modulation of the CD4+ T cell response to a dominant L. major antigen through dendritic cell targeting”, Abel Salazar Biomedical Institute, University of Porto.
28. Reis RM. Jury member (*opponent*) for the Master Degree in Oncology of Maria do Céu dos Santos Silva Costa – “Marcadores Moleculares na Progressão do Carcinoma da Bexiga”, Instituto de Ciências Biomédicas Abel Salazar, University of Porto.
29. Reis RM. Jury member for the PhD Degree in Health Sciences of Jorge Sérgio Reis Filho – “Patologia Molecular do Cancro da Mama: A solucionar Enigmas”, School of Health Sciences, University of Minho.
30. Sousa N. Jury member (*opponent*) for the PhD Degree in Psychology of Adriana da Conceição Soares Sampaio – “Estudo volumétrico das áreas cerebrais específicas e fenótipo neurocognitivo no Síndrome de Williams”, University of Minho.
31. Sousa N. Jury member of the PhD thesis in in Biomedical Sciences of João José Cerqueira – “The prefrontal cortex: insights into its functional and structural organization following chronic stress”, School of Health Sciences, University of Minho.

APPENDIX VI

*PhD, Master and other Research Students:
Thesis, Themes and Supervisors*

IV.1 PhD and Master Students: Thesis, Themes and Supervisors

RESEARCH AREA	POSITION	STUDENT	SUPERVISOR(S)	THESIS THEME
Infectious Diseases	PhD(BD)	Almeida, Agostinho	Cecília Leão Fernando Rodrigues (ICVS)	Cellular and molecular analysis of the dimorphic fungi <i>Paracoccidioides brasiliensis</i>
	PhD(BD)	Almeida, Bruno	Paula Ludovico (ICVS) Tiago Outeiro (Harvard Medical School-USA)	Apoptotic pathway(s) in <i>Saccharomyces cerevisiae</i> : proteomic profile, metacaspase-interactive molecules and neurodegeneration
	MT	Barbosa, Matilde	Paula Ludovico (ICVS)	Estudo dos mecanismos de resistência ao stress oxidativo em <i>Candida krusei</i>
	PhD(BD)	Carvalho, Agostinho	Fernando Rodrigues Patrícia Maciel (ICVS)	Susceptibility of immunosuppressed patients to invasive fungal infections: analysis of molecular factors
	PhD(BD)	Coelho, M ^a Rosinda	Gil Castro (ICVS)	Dynamics of Th1/Th17 and Regulatory T cells following infection by <i>Mycobacterium tuberculosis</i> and unitary vaccination (by <i>Mycobacterium bovis</i> BCG and sub-unitary vaccines)
	PhD(BD)	Cruz, Andrea	Gil Castro (ICVS) Andrea Cooper (Trudeau Institute-France)	Understanding BCG vaccination: implications for the design of new preventive strategies against mycobacteriosis
	PhD(BD)	Fraga, Alexandra	Jorge Pedrosa (ICVS)	Understanding <i>Buruli Ulcer</i> : elucidation of the cellular and molecular mechanisms underlying infection with <i>Mycobacterium ulcerans</i>
	PhD(BD)	Osório, Nuno	Fernando Rodrigues (ICVS) David Pearce (Univ. Rochester-USA)	Yeast models of neuronal ceroid lipofuscinosis: From different genes to common biological features
	MT	Pereira, Sandra	Fernando Rodrigues (ICVS)	A comparative study of multiplex-PCR and culturing methods for early detection of candidemia in patients of the intensive care unit
	MT	Santos, Nuno	Margarida Correia-Neves (ICVS)	Tuberculosis in wild ungulates in Portugal
PhD(BD)	Torrado, Egídio	Jorge Pedrosa (ICVS)	Characterization of cellular and molecular immune responses in experimental infection by mycobacteria	
Neurosciences	PhD	Bessa-Peixoto, João	Nuno Sousa (ICVS)	Interaction between anxiety and depression in animal models of behaviour: insights on neuroplasticity and cognitive function

Neurosciences (cont.)	PhD	Bettencourt, M ^a Conceição	Patrícia Maciel (ICVS)	Doença de Machado- Joseph (DMJ)/SCA3: da variabilidade genética à heterogeneidade clínica
	MT	Castro, Andreia	Patrícia Maciel (ICVS)	Study of the misfolding response in animal models of Machado- Joseph disease
	PhD	*Cerqueira, João (MD)	Nuno Sousa (ICVS)	Structural reorganization of the prefrontal cortex by corticosteroids and CRH
	PhD(BD)	Costa, M ^a do Carmo	Patrícia Maciel (ICVS) Jorge Sequeiros (ICBAS) Manuela Santos (Univ. Montreal- Canada)	Study of the homologue in <i>Mus musculus</i> of the Machado-Joseph disease gene
	PhD	Costeira, Maria José (MD)	Joana Palha (ICVS) Susana Ares (Alberto Sols Institute, Madrid-Spain)	Maternal causes of transitory neonatal hypothyroidism: evaluation of pregnant women in the Minho region of Portugal
	PhD	Cotter, Jorge (MD)	Nuno Sousa (ICVS) Jorge Polónia (UP)	Study of the relation between the evolution of hypertension, renal function and urinary excrescent tax of proteins in the population of hypertension people
	PhD (BD)	Fernandes, Anabela	Patrícia Maciel (ICVS)	Characterization of transgenic mice for Machado-Joseph disease
	PhD (BD)	Ferreira, Eduardo	Nuno Sousa (ICVS)	The role of stress in cortico-basal ganglia loop processing in instrumental conditioning
	PhD(BD)	Gonçalves, Leonor	Armando Almeida (ICVS) Antti Pertovaara (Univ Helsinki- Finland)	The interaction between the limbic system and chronic neuropathic pain – the role of the amygdala
	PhD	Lemos, Laurinda (MD)	Armando Almeida (ICVS) Teresa McIntyre (IEP-UM)	New therapies for the treatment of trigeminal neuralgia
	PhD(BD)	Marques, Fernanda	Joana Palha (ICVS)	Searching for the function of transthyretin in the energy metabolism and of the choroid plexus in inflammation
	PhD(BD)	Mesquita, Ana Raquel	Nuno Sousa (ICVS)	Assessing acute and long-term neurological sequelae of seizures on the “limbic” brain: the influence of early life stress and hyperthermia
	PhD	Pêgo, José Miguel (MD)	Nuno Sousa (ICVS)	Influence of stress upon the structure and function of the amygdale
	MT	Pereira, M ^a José (MD)	Nuno Sousa (ICVS)	Ansiolitic effect of propofol in non-sedative doses

	PhD	Pinto-Ribeiro, Filipa	Armando Almeida (ICVS) Nuno Sousa (ICVS)	Anatomical and functional basis for the interaction between stress and chronic (neuropathic) pain
	PhD(BD)	Rodrigues, Ana João	Patrícia Maciel (ICVS)	Cellular and physiological changes associated with absence of Josephin: study in <i>C. elegans</i>
	PhD	Rodrigues, Manuel Lima (MD)	Armando Almeida (ICVS) Rui Nunes (UP)	Sensorimotor innervation of the rat larynx
	PhD(BD)	Ruano, Dina	Joana Palha (ICVS) Patrícia Maciel (ICVS)	Genetics of schizophrenia: the retinoid and thyroid hormone hypothesis
	PhD(BD) (UP)	Santos, Mónica	Patrícia Maciel (ICVS)	Study of the pathogenesis of Rett Syndrome and the role of protein MeCP2 in neuronal function
	PhD(BD)	Silva, Rui	Nuno Sousa (ICVS)	Interventions modulating hippocampal postnatal neurogenesis: structural and functional implications
Development & Neoplasia	PhD(BD)	Albergaria, André	Fernando Schmitt (IPATIMUP/ICVS)	The role of forkhead transcription factors FOXA1 and FOXM1 in endocrine resistance of breast cancer
	MT	Alonso, Isis	Fátima Baltazar (ICVS) Fernando Schmitt (IPATIMUP/ICVS)	Evaluation of the effect of somatostatin analogs in the inhibition of angiogenesis
	PhD(BD)	Costa, Bruno	Rui M. Reis (ICVS)	Brain tumors: molecular profiling and alterations related to therapy response
	PhD(BD)	Costa, Sandra	Fernando Schmitt (IPATIMUP/ICVS)	DNA repair gene polymorphisms in a group of breast cancer patients from portuguese origin
	PhD	*Duarte, Fátima	Fernando Schmitt (IPATIMUP/ICVS)	Mechanisms utilized by growth factors and cytokines in angiogenesis: role of thrombin in the cross-talk between the FGF1 and Notch signalling pathways
	PhD Stud	Baptista, Maria João (MD)	Jorge Correia-Pinto (UM) J. Carlos Areias (UP)	Cardiopulmonary physiopathology and fetal prognostic factors in congenital diaphragmatic hernia
	PhD(BD)	Gonzaga, Silvia	Jorge Correia-Pinto (ICVSM) Alan W Flake (Univ. Pennsylvania)	Fetal lung development and new therapeutically approaches in congenital diaphragmatic hernia
	PhD (FMUP-UP)	Henriques-Coelho, Tiago	Adelino Leite-Moreira (FMUP) Jorge Correia-Pinto (ICVS)	Celular and neurohumoral regulation of pulmonary growth and hypertension: Pathophysiological implications
	PhD	Lima, Estêvão	Jorge Correia-Pinto (ICVS) José la Fuente (ICBAS)	Development of novel techniques for intra-abdominal scarless surgery

Development & Neoplasia (cont.)	PhD(BD)	*Pascoal, Susana	Isabel Palmeirim (ICVS)	New Aspects of the Coordination of Vertebrate Limb Bud Development
	PhD(BD)	Pinheiro, Céline	Fátima Baltazar (ICVS)	Role of monocarboxylate transporters in solid tumors
	PhD (ICBAS-UP)	Reis, Joaquim	Jorge Correia-Pinto (ICVS)	Fetal pathophysiology of experimental myelomeningocele
	PhD(BD)	*Reis-Filho, Jorge	Fernando Schmitt (IPATIMUP/ICVS)	Myoepithelial differentiation in breast carcinomas: pathological recognition and clinical implications.
	PhD(BD)	*Rodrigues, Sofia	Isabel Palmeirim (ICVS)	Molecular and Cellular Characterization of Somitogenesis in Early Chick Development
	PhD Stud	Rolanda, Carla	Jorge Correia-Pinto (ICVS)	Natural Orifices Transluminal Endoscopic Surgery
	PhD(BD)	*Santos, Marta	Jorge Correia-Pinto (ICVS) Isabel Palmeirim (ICVS)	Development mechanisms of normal and hypoplastic fetal lungs
	PhD(BD)	Silva, Liliana	Isabel Palmeirim (ICVS) Martin Catala (Univ. Paris)	Control of the anteroposterior patterning of axis and the somitogenesis processes

* Theses successfully finished during 2006

PhD (BD) = PhD students with a grant from FCT

PhD = PhD Students with funding from either projects or the ICVS

MT = Master students (thesis research work)

ICVS = Life and Health Research Institute

IPATIMUP = Institute for Molecular Pathology and Immunology, University of Porto

UM = University of Minho

UP = University of Porto.

IV.2 Other Research Students: Themes and Supervisors

RESEARCH AREA	POSITION	STUDENT	SUPERVISOR(S)	THESIS THEME
Infectious Diseases	BI	Barroso, António	Jorge Pedrosa (ICVS)	Strategies to improve the therapeutic effect of anti-mycobacterial drugs
	B'TI	Carmona Jenny	Jorge Pedrosa (ICVS)	Virulence of clinical isolates of mycobacteria and implications for infection outcome
	UGS	Cunha, Cristina	Fernando Rodrigues (ICVS)	Avaliação do processo de divisão por gemulação múltipla de <i>Paracoccidioides brasiliensis</i>
	BI	Marques, Belém	Fernando Rodrigues (ICVS)	Micologia Celular e Molecular: Epidemiologia de Micoses Sistêmicas e Avaliação de Factores de Risco
	BI	Mesquita, Ana M ^a	Paula Ludovico (ICVS)	Identification and characterization of mycotoxins modulators of host immune system
Neurosciences	Assist.	Carvalho, André (MD)	Nuno Sousa (ICVS)	Pharmacological interventions modulating the limbic control of the HPA axis: the role of ghrelin
	Assist.	Leão, Pedro	Nuno Sousa (ICVS)	The ventral striatum system following chronic stress
	BI	Leite-Almeida, Hugo	Armando Almeida (ICVS)	Role of the medullary dorsal reticular nucleus in the modulation of chronic pain
	Assist.	Oliveira, Mário (MD)	Nuno Sousa (ICVS)	Maternal dexamethasone treatment: neurodevelopmental consequences
	B'TI	Roque, Susana	Joana Palha (ICVS)	Maternal causes of transitory neonatal hypothyroidism: evaluation of pregnant women in the Minho region of Portugal
	Assist.	Taipa, Ricardo (MD)	Nuno Sousa (ICVS)	The structure of striatum in health and disease
	Assist.	Tavares, Hugo (MD)	Nuno Sousa & Patrícia Maciel (ICVS)	Febrile convulsions: implications in neurodevelopment
	Res.	Valle-Fernandes, Ana Lídia	Armando Almeida (ICVS)	Technical assistance in pain research
BI	Caroline Jeya Sheeba	Isabel Palmeirim (ICVS)	Estudo de novos genes aviários e seu envolvimento no relógio molecular associado à segmentação dos embriões de vertebrados	

Development & Neoplasia	BTI	Ferreira, Mónica	Isabel Palmeirim (ICVS)	Aprendizagem de técnicas de Biologia do Desenvolvimento utilizando a galinha como modelo
	Mon.	Freitas, Cristina	Jorge Correia Pinto (ICVS)	src pathway and lung development
	BI	Gomes, Ana	Rui M. Reis (ICVS)	Analysis of c-kit alterations in human tumors
	Assist.	Melo-Rocha, Gustavo (MD)	Jorge Correia Pinto (ICVS)	Cardiac calcium kinetics-related proteins in the pregnant rat
	Assist.	Nabais, Sérgio	Jorge Correia Pinto (ICVS)	Miocardial overload and WNT pathway
	Mon.	Nogueira-Silva, Cristina	Jorge Correia Pinto (ICVS)	The role of IL-6 in normal and hypoplastic lung
	Assist.	Nunes, Susana	Jorge Correia Pinto (ICVS)	Ghrelin and <i>in vitro</i> lung development
	Res.	Pereira, Marta	Rui M. Reis (ICVS)	Analysis of MGMT in Gliomas
	BI	Resende, Tatiana	Isabel Palmeirim (ICVS)	Estudo de interacções proteicas envolvendo a maquinaria molecular do relógio da segmentação de embriões vertebrados

Assist. – ECS Assistant

BI – Research grant from either FCT or projects

BTI - Technical research grant from projects

Mon - ECS Monitor

Res – Researcher without institutional grant

ICVS - Life and Health Research Institute

UGS – Undergraduate student

APPENDIX VII

“Ciência Falada no ICVS” – Talking about Science at ICVS: Seminars in 2006

“Ciência Falada no ICVS” – Talking about Science at ICVS: Seminars held in 2006 and respective internal and external invited speakers

1. "Barreira Hematoencefálica na saúde e na doença: contribuição para o seu estudo", January 17
Speaker: Nuno Borges, PhD. Faculdade de Ciências da Nutrição e da Alimentação, U.P.
2. "Neurobiology of Depression: an integrative model", January 24
Speaker: Nuno Sousa, MD PhD. ICVS – Escola de Ciências da Saúde, UM.
3. "Multiplex PCR identification of clinically relevant *Candida* species: from research to clinical application", January 31
Speaker: Agostinho Carvalho, PhD-Student. ICVS – Escola de Ciências da Saúde, UM.
4. "Starch Based Polymers and Umbilical Cord Stem/Progenitor Cells in Tissue Regeneration", February 7
Speaker: António Salgado, Pos-Doc. ICVS – Escola de Ciências da Saúde, UM.
5. "Asymmetrical on the inside, Symmetrical on the outside", February 14
Speaker: Leonor Saúde, PhD. Instituto Gulbenkian de Ciência, Oeiras.
6. "O que é um Centro de Recursos Biológicos?", February 21
Speakers: Nelson Lima, PhD e Isabel Santos, PhD. DEB-UM.
7. "Apoptotic pathways in *Saccharomyces cerevisiae*: from proteomics to cell function", March 7
Speaker: Bruno Almeida, PhD-Student. ICVS – Escola de Ciências da Saúde, UM.
8. "Viruses do it. Hosts do it. The two sides of immune regulation", March 9,
Speaker: Margarida Saraiva, Pos-Doc. National Institute for Medical Research, London, UK.
9. "Lymphangiogenesis and Cancer", March 14
Speaker: Adhemar Longato, PhD. ICVS – Escola de Ciências da Saúde, UM.
10. "Determinação do sexo fetal por análise do DNA plasmático e outras aplicações ", March 17
Speaker: José Eduardo Levi, PhD. Instituto de Medicina Tropical, Universidade de São Paulo.
11. "P-cadherin – its importance in carcinogenesis and progression of Breast Cancer", March 21
Speaker: Joana Paredes, Post-Doc, ICVS – Escola de Ciências da Saúde, UM.

12. "Development and regulation of immune responses: a role for IL-17", March 28,
Speaker: Gil Castro, PhD. ICVS – Escola de Ciências da Saúde, UM.
13. "Keep cool! Stress harms your prefrontal cortex!", April 4
Speaker: João Cerqueira, MD, PhD-Student. ICVS – Escola de Ciências da Saúde,
UM.
14. "Saúde e Desporto", April 11
Speaker: José Viseu PhD. Universidade do Minho
15. "c-Kit, hope for the hopeless?", April 18
Speaker: Ana Gomes, BI. ICVS – Escola de Ciências da Saúde, UM.
16. "Hox genes: old problems, new ideas", May 2
Speaker: Moisés Mallo MD PhD. Instituto Gulbenkian de Ciência, Oeiras.
17. "Marcadores Tumorais em Colo Uterino", May 5
Speaker: Gerson Botacini das Dores , MD PhD. Digene, Brasil.
18. "NOTES: Natural Orifice Translumenal Endoscopic Surgery", May 9
Speaker: Estevão-Lima, MD, PhD-Student. ICVS – Escola de Ciências da Saúde, UM.
19. "Non-classical protein release in angiogenesis and inflammation", May 10
Speaker: Igor Prudovsky, PhD. Maine Medical Center Research Institute,
Scarborough, ME. USA.
20. "Effective Science Writing: Theory Into Action", May 16
Speaker: Virginia Anderson, PhD. University of Towson.
21. "Involvement of the choroid plexus in Alzheimer's disease pathology: a role for
transthyretin?", May 23
Speaker: João Sousa, Pos-Doc. ICVS – Escola de Ciências da Saúde, UM.
22. "Therapeutic induction of regulatory T cells in tolerance", May 30
Speaker: Luís Graça, MD PhD. IMM & Faculdade de Medicina de Lisboa.
23. "Machado-Joseph disease: a transgenic mouse model", June 6
Anabela Fernandes, PhD-Student. ICVS – Escola de Ciências da Saúde, UM.
24. "Resistência à mudança ", June 13
Joaquim Pinto Machado, MD. PhD. Escola de Ciências da Saúde, UM.
25. "Prognostic Markers in Head and Neck Cancer", June 20
Otávio Curioni , MD. PhD. Faculdade de Medicina da Universidade de São Paulo,
Brasil.
26. "Molecular Biology of Brain Tumors: Emerging Clinical Applications " , September 12
Rui Reis, PhD. ICVS – Escola de Ciências da Saúde, UM.

27. “Neuroinflamação e excitotoxicidade em epilepsia ”, September 26
João Malva, PhD. Centro de Neurociências de Coimbra.
28. Role of IFN-g following infection by Mycobacterium ulcerans, October 3
Alexandra Fraga, PhD-Student. ICVS – Escola de Ciências da Saúde, UM.
29. “Audacious Goals for a Surgeon: rom Organs into Cells”, October 10
Jorge Correia Pinto, MD. PhD. ICVS – Escola de Ciências da Saúde, UM.
30. “New Model for Human Congenital Cystic Adenomatoid Malformation by Controlled In Utero Gene Transfer”, October 17
Silvia Gonzaga, PhD-Student. ICVS – Escola de Ciências da Saúde, UM.
31. “Immunological and pathological consequences of bacteria-induced secondary necrosis of host phagocytes: the Photobacterium story”, October 24
Ana do Vale, PhD. Instituto de Biologia Molecular e Celular, U.P.
32. “Rett syndrome: study of the mouse model of a neurodevelopmental disorder”, October 31
Mónica Santos, PhD-Student. ICVS – Escola de Ciências da Saúde, UM.
33. “Chronic pain induces neurogenesis in the amygdala and depressive behavior”, November 7
Leonor Gonçalves, PhD-Student ICVS – Escola de Ciências da Saúde, UM.
34. “Understanding BCG vaccination: implications for the design of new preventive strategies against mycobacteriosis”, November 14
Andrea Cruz, PhD-Student. ICVS – Escola de Ciências da Saúde, UM.
35. “Cellular and molecular studies of the dimorphic pathogenic fungus Paracoccidioides brasiliensis ”, November 28
Agostinho Almeida, PhD-Student. ICVS – Escola de Ciências da Saúde, UM.
36. “The thymus as a target for mycobacterial infections”, December 5
Margarida Correia-Neves, PhD. I ICVS – Escola de Ciências da Saúde, UM.
37. “Mitochondrial dysfunction and neurodegeneration in Huntington's disease: effect of pharmacological treatment at the cellular level”, December 19
Cristina Rego, PhD. Centro de Neurociências de Coimbra.

APPENDIX VIII

Post-Graduation Courses

POST-GRADUATION COURSES

Scientific Content and Structure

In 2006, and for the sixth consecutive year, we offered a highly specialized training for medical doctors and investigators in biomedical sciences. To run this programme, we found financial support of “Fundação Calouste Gulbenkian”, as well as of several companies: Alfagene, Bioportugal, VWR International, PG-Hitec, Dias de Sousa S.A., Bonsai Technologies, INOPAT, Olympus, ENZIfarma, Frilabo, Reagente 5 , Roche, Labometer, Sarstedt, Tadinense and Delta Cafés. We are grateful to our sponsors for the helpful contribution for this international program of courses in biomedical sciences and educational workshops.

The 2006 post-graduation programme included twelve courses and six educational workshops, listed below, and counted with 447 participants. Detailed information of the programme (courses and educational workshops) is available at (<http://www.ecsaude.uminho.pt/postgrad>).

Courses in Biomedical Sciences

Nervous System and Immune System: a Struggle and a Dialogue

Coordinators: Marina Bentivoglio, Krister Kristensson, Joana Palha and Nuno Sousa

January 30th- February 2nd

EGFR Targeted Cancer Therapy: from Bench to Bedside

Coordinators: Fernando Schmitt, António Araújo, Fátima Baltazar, Fernanda Milanezi and Rui Reis

April 29th

Photodynamic Therapy: Basics and Clinical Applications

Coordinators: Celeste Brito, Sousa Basto, João Moura and Paula Ludovico

May 25th-26th

Proteomics in Life Sciences

Coordinators: Paula Ludovico, Fernando Rodrigues, Deborah Penque and Cecilia Leão

June 27th-July 1st

Mental Retardation: from Clinic to Gene and Back

Coordinators: Patricia Maciel and Jorge Pinto Basto

July 3rd-7th

Laboratory Animal Science

Coordinators: Jorge Pedrosa, Patrícia Maciel and Magda Carlos

September 4th-15th

Imaging in Neuropsychiatric Research

Coordinators: Óscar Gonçalves and Nuno Sousa

September 11th-13th

Inflammatory Type of Diseases: a Role for Cytokines

Coordinators: António Gil Castro and Jorge Pedrosa

October 12th-14th

Neurosurgery

Coordinators: Carlos Alegria and Nuno Sousa

October 16th-20th

Hands-on Course on Thoracoscopy, Laparoscopy and Retroperitoneoscopy

Coordinators: José Luís Carvalho, Estevão Lima and Jorge Correia-Pinto

October 25th-28th

Stem Cells: Pitfalls and Successes

Coordinators: Nuno Sousa, Rui Reis and Nuno Neves

October 26th-27th

Epidemiology in Clinical Practice

Coordinator: Mário Freitas

November 16th-18th

Educational Workshops

Effective Grading

Coordinators: Manuel João Costa and Virgínia Anderson

May 15th-16th

Advanced Workshop on Collaborative Learning

Coordinators: Manuel João Costa, Richard Felder and Rebecca Brent

July 5th

Applying Information and Communication Technologies in Education

Coordinators: Manuel João Costa and Guilherme Marson

July 6th-8th

(Cancelled)

Developing Technology –Based Tools for Education: a Project Approach

Coordinators: Manuel João Costa and Guilherme Marson

July 10th-12th

(Cancelled)

Assessment of Medical Competence

Coordinators: Manuel João Costa and Lambert Schuwirth

July 24th-25th

The nematode *C. elegans*: a Model for Teaching and research in Biology”

Coordinators: Patricia Maciel

September 18th-20th

(Cancelled)

Global evaluation

In the past year of 2005, we started offering courses on medical education, which was continued in the year 2006. The increase in the number of the educational workshops and the success obtained encouraged us to pursue the challenge of research in medical education and to promote activities that develop individual's abilities to teach.

In 2006 we offered new editions of courses “Laboratory Animal Science”, “Neurosurgery” and “Photodynamic Therapy: Basics and Clinical Applications” that had been very successful in previous years and that continue to represent areas of demand among the participants. In particular, for the second consecutive year we offered the training on “Laboratory Animal Science”, which provides international certification for research using animal models. For the third time the course “Neurosurgery” took place reinforcing the importance of the new laboratory of neurosurgery for advanced training that will be installed in the new facilities. In addition, we also provided the third edition of the course “Photodynamic Therapy: Basics and Clinical Applications” now within the “International Training Programme” of EURO-PDT.

The programme included novel courses in diverse scientific areas and among this multiplicity, we highlight the course “Stem cells: Pitfalls and Successes” that was recognized as an “Advanced Training Program” of the Portuguese Society for Stem Cells and Cellular Therapies (<http://www.spce-tc.org/>). It is also worth to note that the course “Mental Retardation: from clinic to gene and back” had the support of “Fondation Jérôme Lejeune”, which allowed us to give five scholarships to foreign students. In addition, the course “Proteomics in Life Sciences” was organized within "European Proteomics Association" and the “Portuguese Proteomics Network”.

The educational workshop “The nematode *C. elegans*: a Model for Teaching and Research in Biology” was cancelled this year but will be part of the International Programme next year.

The main goal of the International Postgraduate Programme is to offer a highly specialized training for medical doctors and investigators in biomedical sciences as well as to improve

and promote the medical education, an emergent research area that aims to improve individual's abilities to teach. Therefore, we pretend to continue offering training in multiple areas by organizing novel courses every year, but also by promoting additional editions of courses for which the demand is evident.

Participants Background

In 2006 the International Postgraduate Programme counted with 447 participants, the highest level of participation since the programme started, which might reflect an increased interest of biomedical researchers and clinicians in the offer we propose. In figure 1 it is presented the participants background distribution in 2006.

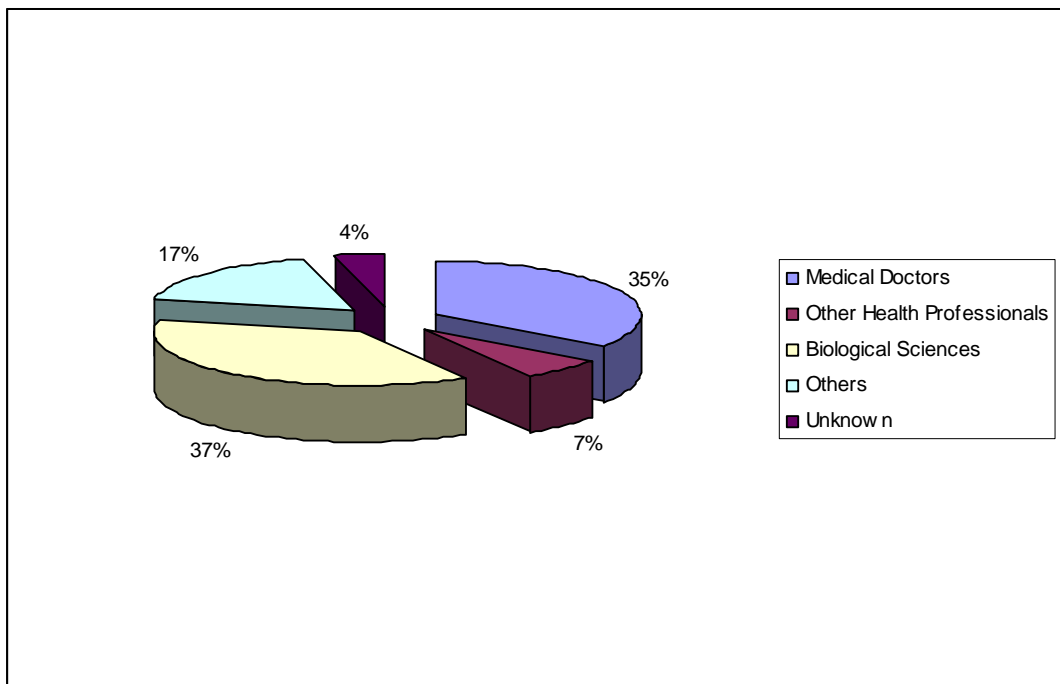


Figure 1 - Background distribution of the participants (“Unknown” reflects the number of questionnaires in which the participants’ background was not provided; “Other Health Professionals” include participants having as background pharmacy, psychology, clinical analysis and public health; “Others” include participants having as background polymer, biotechnological, biological, food technology or chemical engineering).

According to the main goal of the programme and similarly to previous years the vast majority of participants are researchers from biological sciences (37%) or medical doctors (35%). The participants belong to different national and international institutions as presented in figure 2.

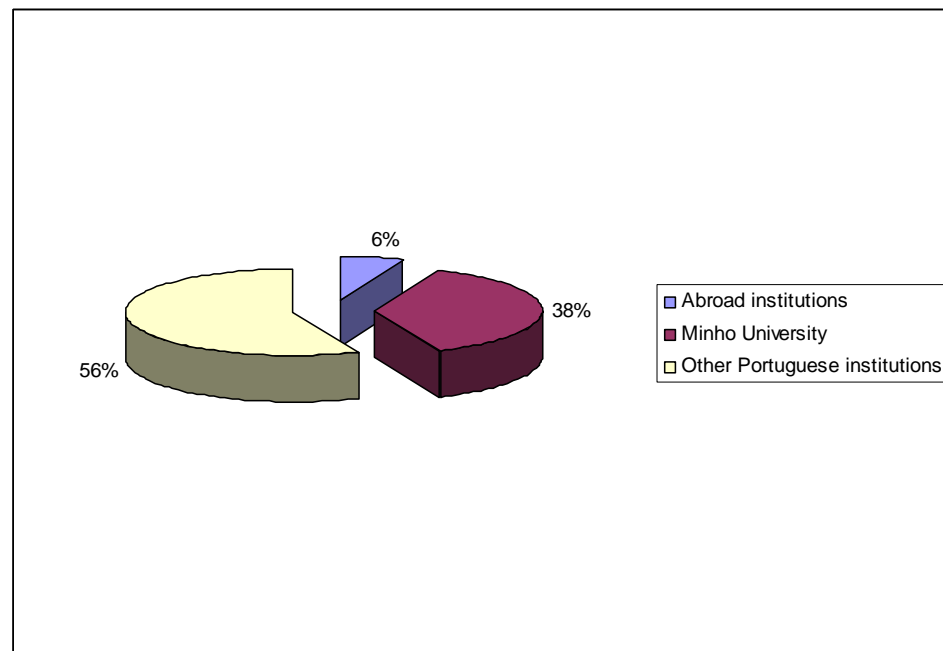


Figure 2 – Participants affiliation.

The vast majority of the participants belong to Portuguese Institutions other than Minho University, which is very representative of the growing acceptance of our programme in the national biomedical research and medical communities. Although still in a lower percentage our programme counted with participants from international institutions, particularly in the courses “Neurosurgery”, “Nervous System and Immune System: a Struggle and a Dialogue” and “Mental Retardation: from Clinic to Gene and Back”, which reinforce our programme as an international one.

Evaluation results

A questionnaire was filled by most of the participants (346 out of 447) to evaluate several aspects of each course or workshop. The overall evaluation provided the following results presented in figure 3: excellent (45%), Very good (45%), Good (8%), Fair (0%), Poor (0%).

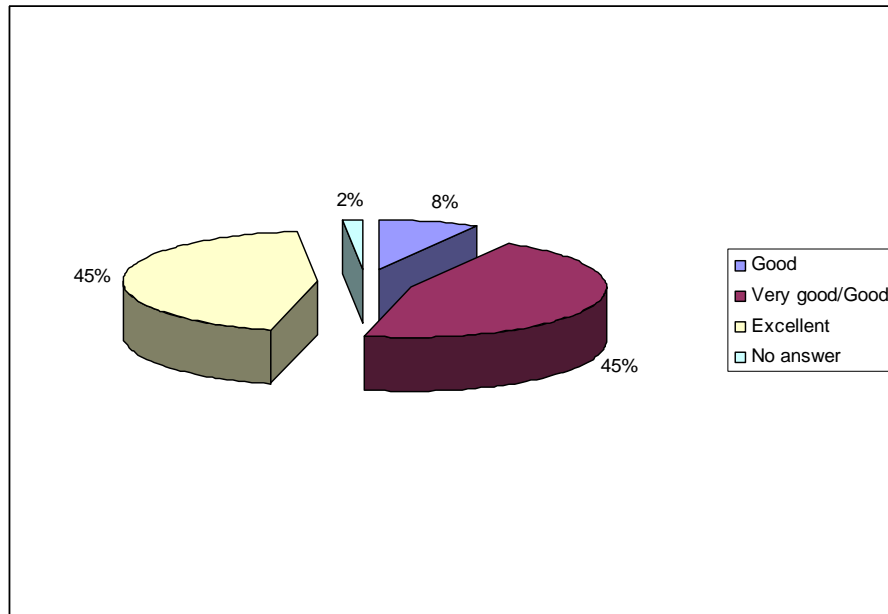


Figure 3 – Evaluation results.

In most cases, participants considered that the courses should be repeated in years to come and would recommend it to a peer, which represents a great incentive to continue and consolidate our programme.