



6th IPOPI PID FORUM:
Principles of Care for Primary Immunodeficiencies

Managing PID diagnosis and care in all countries (P6)

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ACCESS TO PID CARE WORLD-WIDE

ACCESS TO PID DIAGNOSIS

ACCESS TO PID TREATMENTS

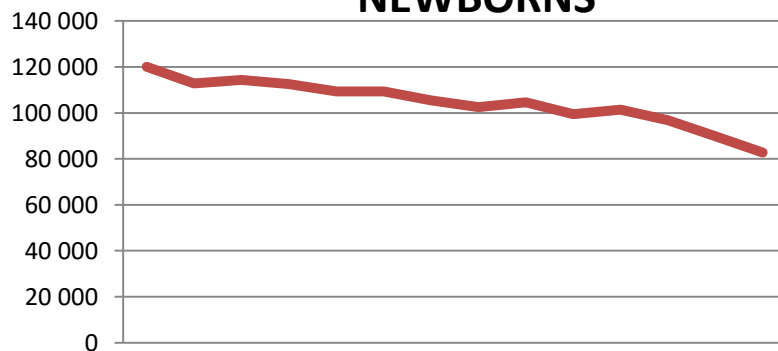
PORTUGAL

10.51 MILLION INHABITANTS

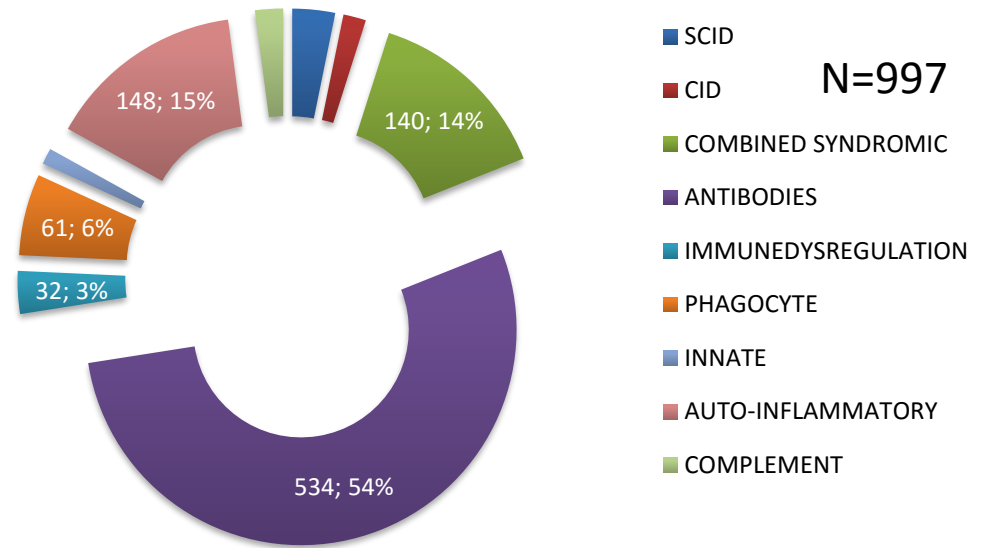
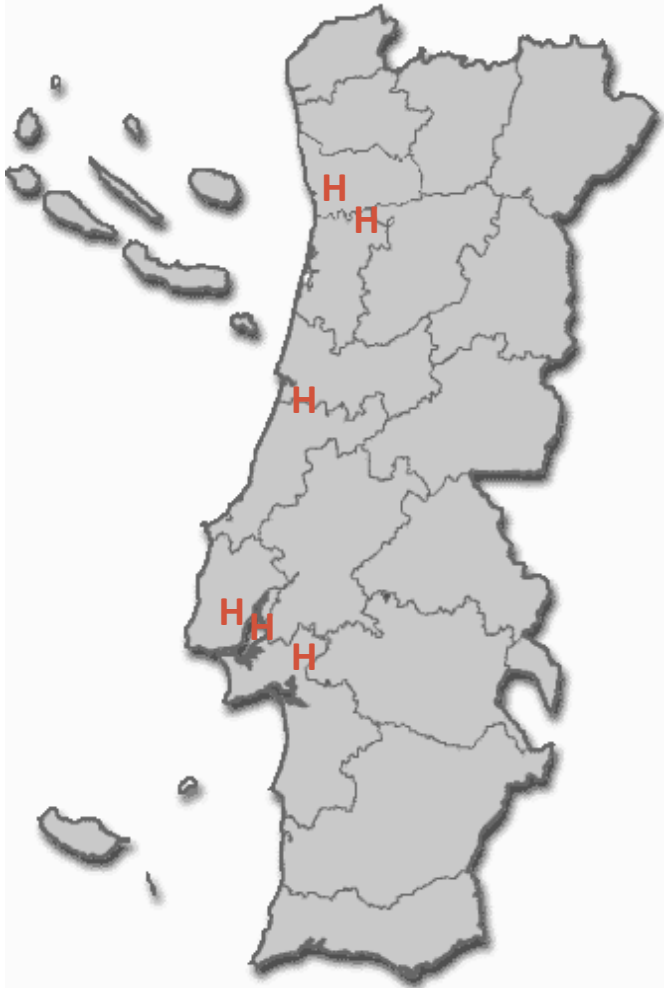
DECREASING BIRTH RATE



NEWBORNS



PIDs IN PORTUGAL



REGISTRY

- SINCE 1998: NATIONAL REGISTRY- REPORID
- ESID REGISTRY
- JEFFREY MODELL FOUNDATION

PIDs IN PORTUGAL



CVID Bronchiectasis

LATE DIAGNOSIS
INADEQUATE TREATMENT

PIDs IN PORTUGAL

No newborn screening & Universal BCG at birth

Human Nude Phenotype
FOXN1 deficiency
Thymus Transplantation

BCG adenitis



Total alopecia



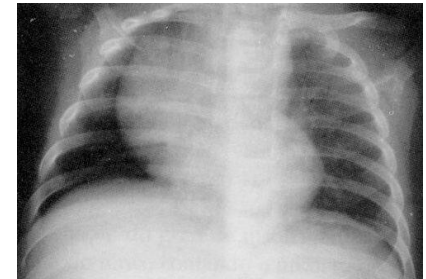
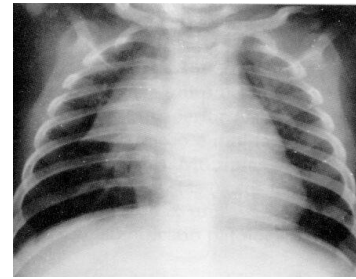
Nail dystrophy



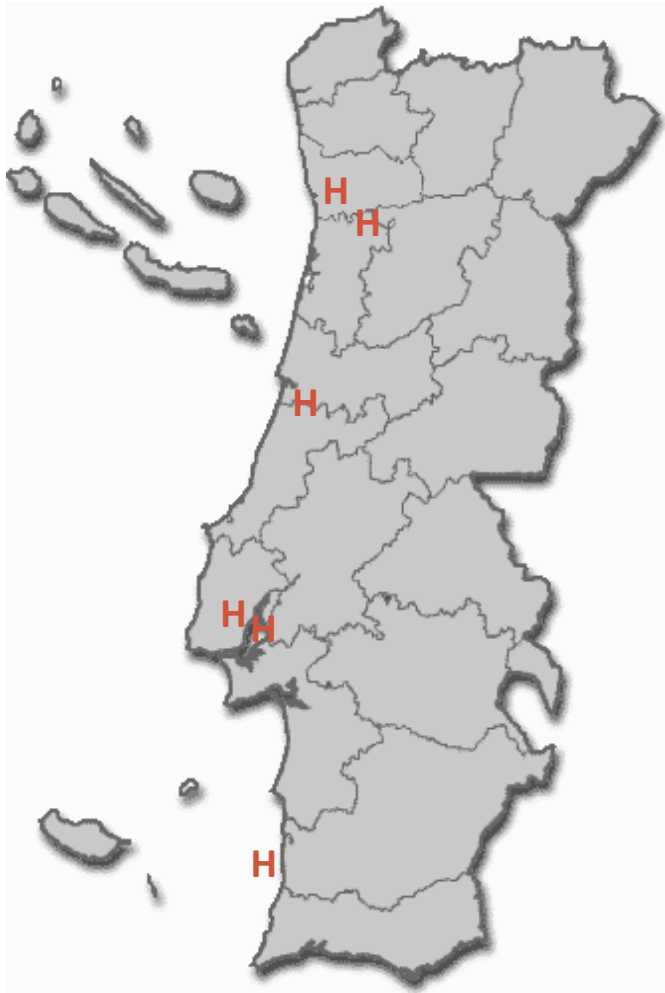
Athymia



X-SCID (γ C defect)
HSC Transplantation



PIDs IN PORTUGAL



IMUNOGLOBULIN REPLACEMENT THERAPY

- IVIG- 79 PATIENTS
- SCIG- 73 PATIENTS
- 36% children (N=56)

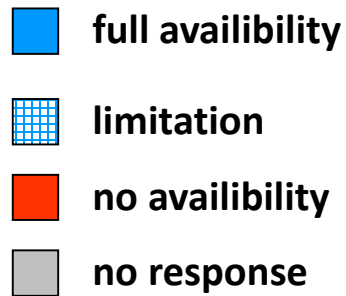
HEMATOPOIETIC STEM CELL TRANSPLANTATION

- First HSCT in Portugal: 1994 (LAD1)
- 39 patients underwent HSCT for PID since 1994
- 10/39 deaths (26%)
- 1 haploidentical HSCT

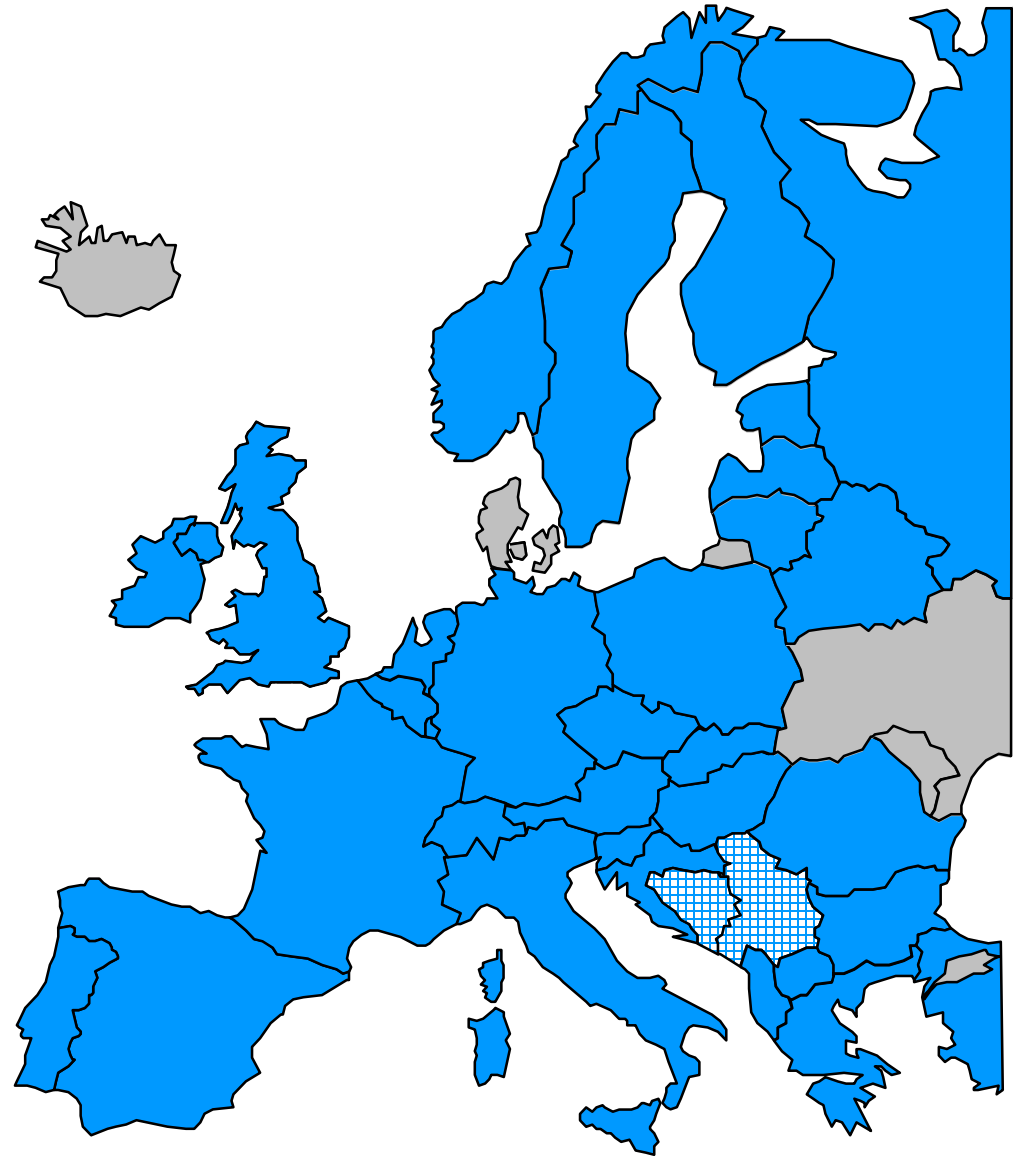
PIDs IN PORTUGAL

EUROPE 2014

IVIG 2014







A. Sediva et al. ESID 2014



PIDs IN PORTUGAL

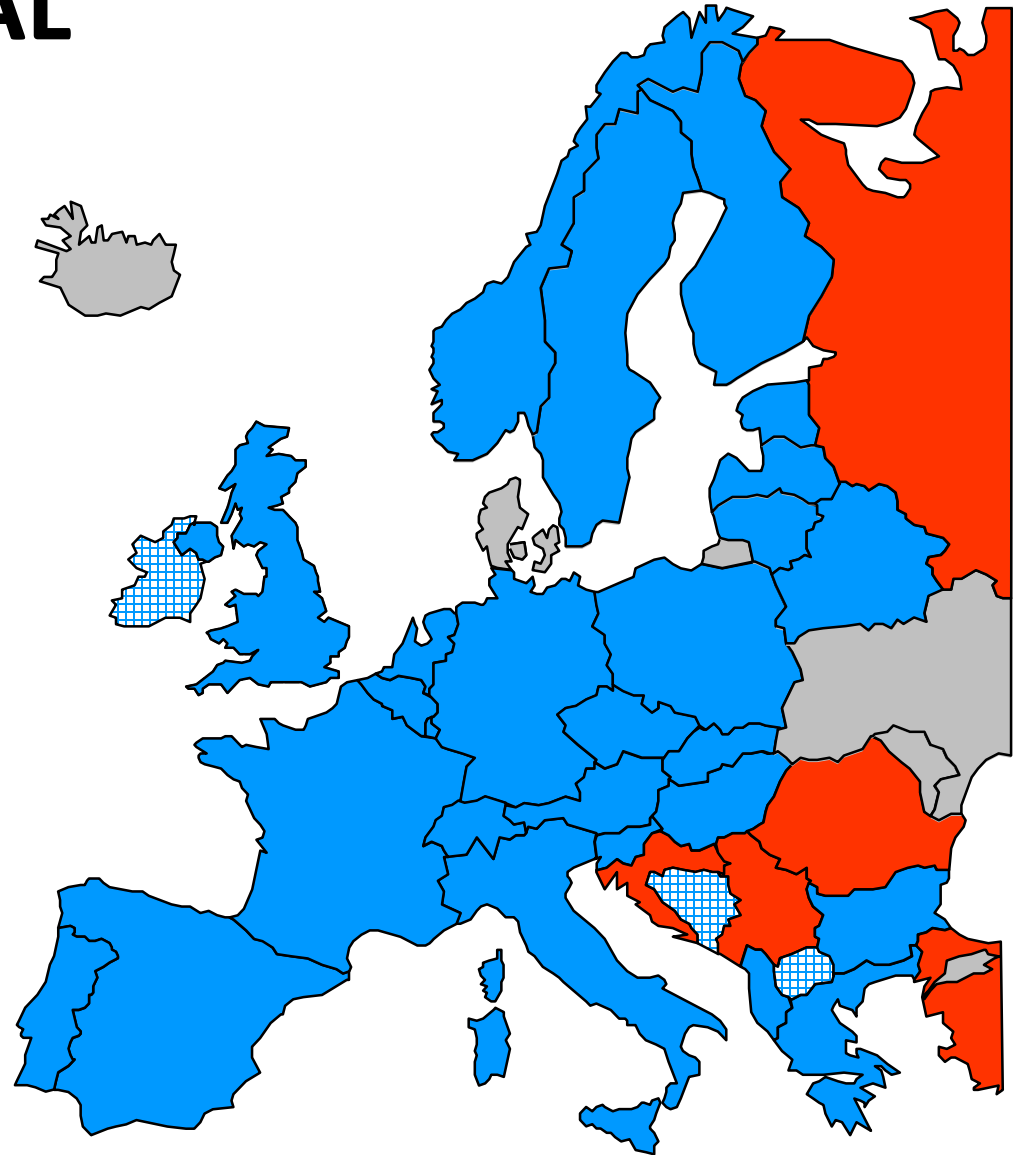
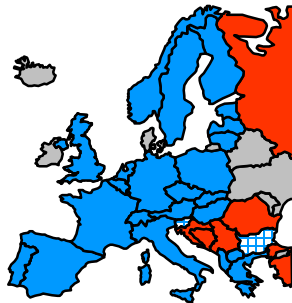
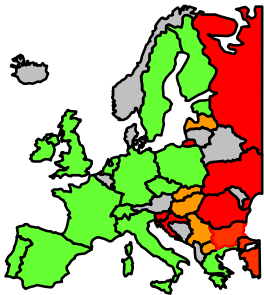
EUROPE 2014

IVIG 2014

-  full availability
-  limitation
-  no availability
-  no response

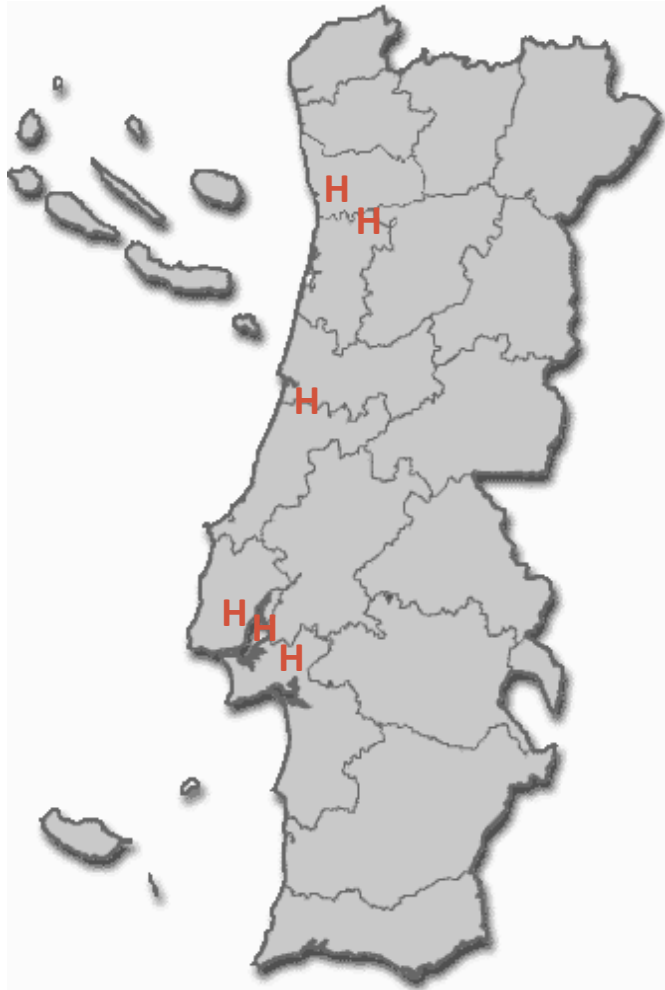
SCIG 2011

SCIG 2013



A. Sediva et al. ESID 2014

PIDs IN PORTUGAL



MEDICAL STAFF

FELLOWSHIPS IN WELL-RECOGNIZED PID CENTRES

- | | |
|-------------|------------|
| - LONDON | -PARIS |
| - OXFORD | -BARCELONA |
| - NEWCASTLE | -SÃO PAULO |

PARTICIPATION IN INTERNATIONAL MULTICENTRIC PROJECTS

- EU CALL ON PUBLIC HEALTH (E. GAMBINERI)
- European Network for Immune Deficiencies (S. NEJENTSEV)

Centro de Imunodeficiências Primárias, Lisboa



Instituto
de Medicina
Molecular



Centro de Imunodeficiências Primárias

FMUL/IMM/CHLN



MISSION

- DIAGNOSIS AND MANAGEMENT OF PID PATIENTS
- TEACHING, TRAINING AND DISSEMINATION OF KNOWLEDGE
- RESEARCH
- INTERACTION WITH SOCIETY

Formally signed protocol by Faculdade de Medicina de Lisboa (FMUL), Instituto de Medicina Molecular (IMM) and Hospital de Santa Maria (HSM), 2007, involving the following departments:

Clínica Universitária de Pediatria (Director: Prof M. do Céu Machado)

Serviço de Imunoalergologia (Director: Prof M Pereira Barbosa)

Clínica Universitária de Medicina II (Director: Prof Rui M Victorino)

Serviço de Genética Clínica (Director: Dra Isabel Cordeiro)

Serviço de Hematologia (Director: Prof J Alves do Carmo)

Unidade de Imunologia Clínica IMM (Director: Prof Ana E. Sousa)

Laboratório de Imunologia Clínica FMUL (Director: Prof Rui M Victorino)

PIDs IN PORTUGAL

INCREASING AWARENESS



**Integrado na Semana Mundial
das Imunodeficiências Primárias**

Dia Mundial da Imunologia 2012

**Imunodeficiências
como identificar**

**O papel da Medicina Geral e Familiar no diagnóstico e tratamento
de crianças e adultos com Imunodeficiências Primárias**



PIDs IN PORTUGAL



blood

2011117: 688-696
doi:10.1182/blood-2010-06-292490 originally published
online October 26, 2010

First use of thymus transplantation therapy for FOXN1 deficiency (nude/SCID): a report of 2 cases

M. Louise Markert, José G. Marques, Bénédicte Neven, Blythe H. Devlin, Elizabeth A. McCarthy, Iv K. Chinn, Adriana S. Albuquerque, Susana L. Silva, Claudio Pignata, Geneviève de Saint Basile, R M. Victorino, Capucine Picard, Marianne Debre, Nizar Mahlaoui, Alain Fischer and Ana E. Sousa



blood

Prepublished online September 5, 2014;
doi:10.1182/blood-2014-08-591370

Mutations in *TRNT1*, encoding the CCA-adding enzyme, cause congenital sideroblastic anemia with B cell immunodeficiency, periodic fevers and developmental delay (SIFD)

Pranesh K. Chakraborty, Klaus Schmitz-Abe, Erin K. Kennedy, Hapsatou Mamady, Turaya Naas, Danielle Durie, Dean R. Campagna, Ashley Lau, Anoop K. Sendamarai, Daniel H. Wiseman, Alison May Stephen Jolles, Philip Connor, Colin Powell, Matthew M. Heeney, Patricia-Jane Giardina, Robert J. Klaassen, Caroline Kannengiesser, Isabelle Thuret, Alexis A. Thompson, Laura Marques, Stephen Hughes, Denise K. Bonney, Sylvia S. Bottomley, Robert F. Wynn, Ronald M. Laxer, Caterina P. Minniti, John Moppett, Victoria Bordon, Michael Geraghty, Paul B.M. Joyce, Kyriacos Markianos, Adam M. Rudner, Martin Holcik and Mark D. Fleming

Hemophagocytic lymphohistiocytosis in two patients with underlying IFN- γ receptor-deficiency

Bianca Tesi^{1,2,*}MD, Elena Sieni^{3,*}MD, Conceição Neves⁴, Francesca Romano⁵, Valentina Cetica³PhD, Ana Isabel Cordeiro⁴MD, Samuel Chiang⁶MSc, Heinrich Schlums⁶MSc, Luisa Galli⁷MD, Stefano Avenali⁸MD, Annalisa Tondo³MD, Clementina Canessa⁵MD, Jan-Inge Henter¹MD, PhD, Magnus Nordenskjöld²MD, PhD, Amy P. Hsu⁹, Steven M. Holland⁹MD, Joao F. Neves^{4,*}MD, Chiara Azzari^{5,*}MD, PhD, Yenan T. Bryceson^{6,*}PhD

Pyogenic Bacterial Infections in Humans with MyD88 Deficiency

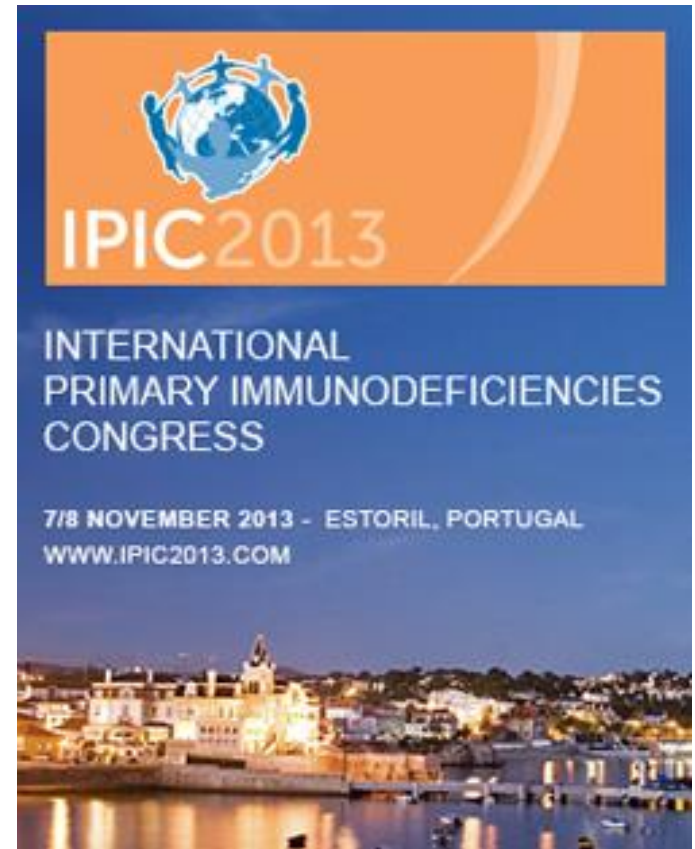
Horst von Bernuth,^{1,2} Capucine Picard,^{1,2,3} Zhongbo Jin,^{4,5} Runnana Pankla,^{4,6} Hui Xiao,⁷ Cheng-Lung Ku,^{1,2} Maya Chrabieh,^{1,2} Imen Ben Mustapha,^{1,2,8} Pegah Ghandil,^{1,2} Yildiz Camcioglu,⁹ Júlia Vasconcelos,¹⁰ Nicolas Sirvent,¹¹ Margarida Guedes,¹⁰ Artur Bonito Vitor,¹² María José Herrero-Mata,¹³ Juan Ignacio Aróstegui,¹⁴ Carlos Rodrigo, Laia Alsina,¹⁶ Estibaliz Ruiz-Ortiz,¹³ Manel Juan,¹⁴ Claudia Fortuny,¹⁶ Jordi Yagüe,¹⁴ Jordi Antón,¹⁶ Mariona Pascal,¹⁴ Huey-Hsuan Chang,¹⁷ Lucile Janniere,^{1,2} Yoann Rose,^{1,2} Ben-Zion Garty,¹⁸ Helen Chapel,¹⁹ Andrew Issekutz,²⁰ László Maródi,²¹ Carlos Rodríguez-Gallego,²² Jacques Banchereau,⁴ Laurent Abel,^{1,2} Xiaoxia Li,⁷ Damien Chaussabel,⁴ Anne Puel,^{1,2} Jean-Laurent Casanova^{1,2,23*}

Human Molecular Genetics, 2011, Vol. 20, No. 8 1509–1523
doi:10.1093/hmg/ddr029
Advance Access published on January 25, 2011

Partial recessive IFN- γ R1 deficiency: genetic, immunological and clinical features of 14 patients from 11 kindreds

Ithaisa Sologuren^{1,*}, Stéphanie Boisson-Dupuis^{4,5,*}, Jose Pestano^{6,*}, Quentin Benoit Vincent^{4,*}, Leandro Fernández-Pérez^{7,*}, Ariane Chapgier⁴, María Cárdenas^{1,9}, Jacqueline Feinberg⁴, M. Isabel García-Laorden¹, Capucine Picard^{4,10}, Esther Santiago¹, Xiaofei Kong⁵, Lucile Janniere⁴, Elena Collino¹², Estefanía Herrera-Ramos¹, Adela Francés¹³, Carmen Navarrete¹⁶, Stéphane Blanche¹¹, Emilia Faria¹⁷, Paweł Remiszewski¹⁹, Ana Cordeiro¹⁸, Alexandra Freeman²⁰, Steven Holland²⁰, Katia Abarca²¹, Mónica Valerón-Lemaur¹⁴, José Gonçalo-Marques²², Luisa Silveira²³, José Manuel García-Castellano^{2,15}, José Caminero³, José Luis Pérez-Arellano^{8,13}, Jacinta Bustamante⁴, Laurent Abel⁴, Jean-Laurent Casanova^{4,5,11,*} and Carlos Rodríguez-Gallego^{1,8,9,*}

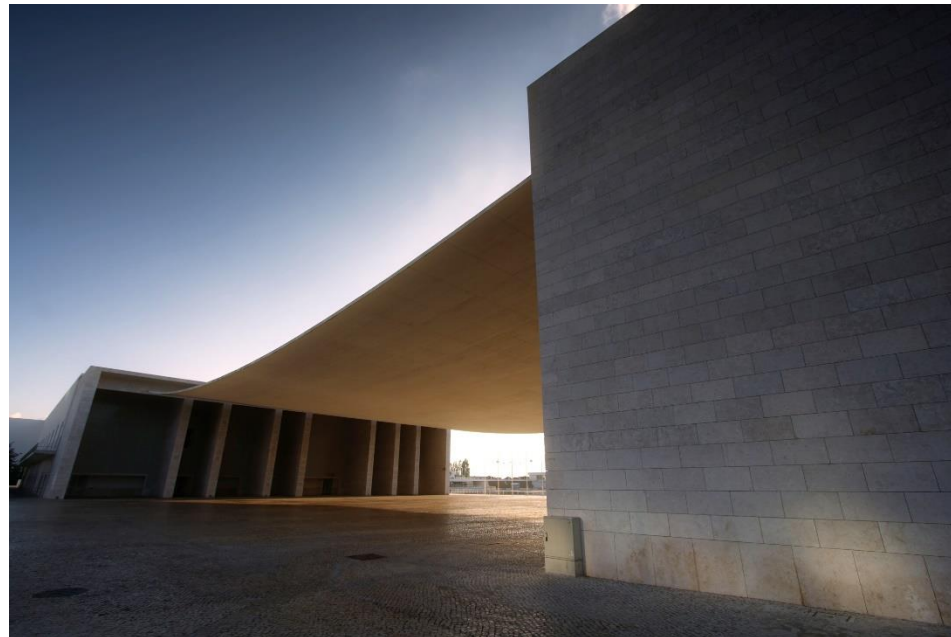
PIDs IN PORTUGAL



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ESID LISBOA 2018



PIDs IN PORTUGAL



ESID LISBOA 2018

EXPECTATIONS

- Increase of Public, Political and Health Care Workers arousal for PID
- Reinforcement for the implementation of:
 - SCID Newborn screening
 - Establishment of a SINGLE HSCT Centre for PID
 - Investment on both clinical and basic investigation



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