

# RaDiCo-IDMet - National cohort on imprinting disorders and their metabolic consequences

Responsable(s) :LINGLART Agnes, Inserm U 1169  
NETCHINE Irène, INSERM U938, équipe 4

Date de modification : 03/01/2017 | Version : 1 | ID : 73382

## Général

### Identification

Nom détaillé	National cohort on imprinting disorders and their metabolic consequences
Sigle ou acronyme	RaDiCo-IDMet
Numéro d'enregistrement (ID-RCB ou EUDRACT, CNIL, CPP, etc.)	CCTIRS N°16-086 /CNIL Decision N° DR-2016-458

### Thématiques générales

Domaine médical	Biology Disability/handicap Endocrinology and metabolism Internal medicine Neurology Psychology and psychiatry Rare diseases
Pathologie, précisions	Imprinting disorders (IDs) are a group of rare human congenital diseases affecting approximately 7,500 - 10,000 patients in the Europe. Until now there are less than ten clinically recognized disorder: Silver Russell Syndrome (SRS), Beckwith Wiedemann Syndrome (BWS), transient neonatal diabetes mellitus (TNDM), Angelman Syndrome (AS), Prader-Willi Syndrome (PWS), Temple Syndrome or maternal UPD 14 (TS), Kagami-Ogata syndrome (WS), pseudohypoparathyroidism (PHP) and Familial Precocious Puberty (FPP). These IDs are characterized by common underlying molecular mechanisms and overlapping phenotypes, including abnormal growth and pubertal development, neurodevelopmental delay and disturbed metabolism. The symptoms of these human IDs suggest that many imprinted genes play important roles in growth regulation during embryonic and postnatal development. In addition, imprinted genes also influence glucose metabolism, nutritional behavior, obesity, pubertal development, bone health and skeletal growth, brain function and

behavior.

Déterminants de santé

Genetic  
Healthcare system and access to health care services  
Lifestyle and behavior  
Medicine  
Nutrition  
Social and psychosocial factors

## Responsable(s) scientifique(s)

Nom du responsable

LINGLART

Prénom

Agnes

Adresse

Bâtiment Alagille, 4ème étage  
GHU Paris-Sud - Hôpital de Bicêtre  
78 rue du Général Leclerc  
94270 LE KREMLIN-BICÊTRE  
FRANCE

Téléphone

+33 (0)1 45 21 78 53

Email

agnes.linglart@aphp.fr

Laboratoire

Inserm U 1169

Organisme

Institut National de la Santé et de la Recherche Médicale / French National Institute for Health and Medical Research (Inserm)

Nom du responsable

NETCHINE

Prénom

Irène

Adresse

Hôpital Armand Trousseau  
Bâtiment Lemarié ? 3ème étage  
26 Avenue du Dr Arnold Netter  
75012 Paris  
FRANCE

Téléphone

+33 (0)1 44 73 66 31

Laboratoire

INSERM U938, équipe 4

Organisme

Institut National de la Santé et de la Recherche Médicale / French National Institute for Health and Medical Research (Inserm)

## Collaborations

Participation à des projets, des

Yes

réseaux, des consortiums

Précisions

Filières de Santé Maladies Rares FIRENDO and OSCAR /European Reference Network ENDO-ERN

Financements

Financements

Public

Précisions

Funded by the French « Investissements d'Avenir » cohorts programme, Grant « ANR » 10-COHO-0003.

Gouvernance de la base de données

Organisation(s) responsable(s) ou promoteur

Institut National de la Santé et de la Recherche Médicale / French National Institute for Health and Medical Research (Inserm)

Statut de l'organisation

Contact(s) supplémentaire(s)

Caractéristiques

Type de base de données

Type de base de données

Morbidity registers

Informations complémentaires concernant la constitution de l'échantillon

All patients (adults and children) affected with an ID regardless of the severity of the disease, with a molecular characterization, with a signed informed consent for all subjects, followed in one partner's center.

To date, the total number of patients follow in all participating sites is 1515. However only part of them will be included in the cohort (those still in contact with the sites or willing to participate?) Considering the incidence of imprinting disorders, the number of incident and prevalent patients newly included in the cohort every year is estimate at 200. In total we expect to include about 2000 patients affected with one of the 8 IDs.

- Study duration

The duration of the follow-up for each participant in this study is 10 years.

The final visit corresponds to the eleventh annual visit. It will include the usual medical examination of IDs patients as for the previous visits. No specific procedure is predicted at the end of the study.

At the end of these 10 years of follow-ups, additional follow-up yearly visits might be performed. Collected data will be considered as exploratory data.

Participation in the cohort study will be proposed by the specialist in charge of the follow-up of patients satisfying the inclusion and not the non-inclusion criteria, during their follow-up visit for prevalent patients and their first visit for incident patients.

Pediatric patients will be recruited during medical consultation (i) through specialized centers belonging to the relevant French Rare Disease Healthcare Reference Networks (Filières de Santé Maladies Rares: Firendo, OSCAR, Defiscience) (ii) through pediatric departments of hospitals upon confirmation of diagnosis (iii) during a follow-up visit.

In the same way,

- Incident adult patients will be recruited by inclusion centers (belonging to the relevant Rare Disease Healthcare Reference Networks) during a medical consultation upon confirmation of their disorder by a first clinical or biological result
- Prevalent adult patients will be recruited during a current follow-up visit.

All patients meeting criteria for inclusion, not satisfying the non-inclusion, and willing to participate will be informed of the terms of the study during their consultation. Informed consent form and patient information sheet will be provided and explained by the investigator. Patients will be given as much time as necessary to evaluate their participation to the study.

Participation in another study is not an exclusion criterion for this study as this is a follow-up of cohort type study.

Dissemination and promotion of the RaDiCo-IDMet cohort will also be made through scientific societies (SFEDP, société de neuroendocrinology, société de neurologie pédiatrique), patient organizations (SRS-SGA; AFOHA, K20) and peer reviewed publications.

## Objectif de la base de données

Objectif principal

Main objective

The main objective of this study is to describe the

natural history of imprinting disorders (IDs)  
according to their metabolic profile.

#### Secondary objectives

Secondary objectives are:

- ? Evaluate the correlation between phenotypes and metabolic profiles at the time of diagnosis.
- ? Evaluate the risk factor of the various metabolic profiles
- ? Identify common therapeutic approaches for all IDs (this might lead to the identification of extended applications to all IDs or a larger group of IDs for drugs with so far restricted Marketing Authorization (MA).
- ? Assess the impact of IDs on quality of life
- ? Analyse inheritance data of the diseases (search for transmission of (epi)genetic mutations in parents of probands).

#### Exploratory objectives

- ? To evaluate the feasibility to use metabolic profiles for clinical classification of IDs
- ? To develop comprehensive, evidence based guidelines for diagnostic, treatments as well as for follow-up of patients
- ? To establish a homogenous group of French IDs patients in order to improve knowledge and medical management of IDs.
- ? To explore the correlation between microbiota and metabolic profiles in IDs.
- ? To explore the possibility of using a therapeutic approach already in use for one ID also for other IDs

#### Information Technology Objectives

- ? Develop and diffuse an electronic tool of data collection from various sources linked to a database integrating a system of management and follow-up of data-management allowing collection of data for IDs patients.
- ? Include data generated by patients and, where relevant, their parents and/or carers.

#### Critères d'inclusion

Inclusion period will last 5 years.  
Patients (adults and children) affected with an ID regardless of the severity of the disease,  
- with a confirmed diagnosis of ID (based on molecular diagnosis)  
- with a signed informed consent for adults or signed informed consent of parents/guardians of minors/ protected adult.

There are no non-inclusion criteria

Type de population	
Age	Newborns (birth to 28 days) Infant (28 days to 2 years) Early childhood (2 to 5 years) Childhood (6 to 13 years) Adolescence (13 to 18 years) Adulthood (19 to 24 years) Adulthood (25 to 44 years) Adulthood (45 to 64 years) Elderly (65 to 79 years) Great age (80 years and more)
Population concernée	Sick population
Pathologie	Q87 - Other specified congenital malformation syndromes affecting multiple systems
Sexe	Male Woman
Champ géographique	National
Détail du champ géographique	National coverage through reference and competence centers focusing on these diseases. European extension envisaged.
Collecte	
Dates	
Année du premier recueil	2017
Année du dernier recueil	2032 and more
Taille de la base de données	
Taille de la base de données (en nombre d'individus)	[1000-10 000[ individuals
Détail du nombre d'individus	1250
Données	
Activité de la base	Current data collection
Type de données recueillies	Clinical data Declarative data Paraclinical data Biological data
Données cliniques, précisions	Direct physical measures

## Medical registration

Détail des données cliniques recueillies	clinical, genetic, biological and morphometric characteristics of IDs over time in pediatric and adults patients.: implementation of the family history; description of patient's phenotype : clinical, biological and morphological manifestations of the disease;
Données déclaratives, précisions	Paper self-questionnaire Internet self-questionnaire Face to face interview
Détail des données déclaratives recueillies	Adults: SF-36, HAQ, WPAI, BES, Childhood Health assessment questionnaire for parents; Children: SF-10, Childhood Health assessment questionnaire and hyperphagia questionnaire of Dykens
Données paracliniques, précisions	evaluation of feeding behaviour, sociological state and quality of life
Données biologiques, précisions	description of patient's genetic or epigenetic defects(description of altered epigenetic processes of imprinted genes in multiple tissues
Existence d'une bibliothèque	Yes
Contenu de la bibliothèque	Others
Détail des éléments conservés	Stools
Paramètres de santé étudiés	Health event/morbidity Health event/mortality Health care consumption and services Quality of life/health perception Others
Consommation de soins, précisions	Hospitalization Medical/paramedical consultation Medicines consumption
Qualité de vie/santé perçue, précisions	Adults: SF-36, HAQ, WPAI, BES, Childhood Health assessment questionnaire for parents; Children: SF-10, Childhood Health assessment questionnaire and hyperphagia questionnaire of Dykens
<b>Modalités</b>	
Mode de recueil des données	eCRF using REDCap; Cloud based, secure by design web accessible platform. Certified Health Data Hosting resource
Nomenclatures employées	HPO, ICD10, Snomed CT, Orpha Codes and ORDO,

## Drug dictionary (DCIs)

Procédures qualité utilisées	Continuous data management; Data Management Plan and Data Validation Plan. Native controls and Query system
Suivi des participants	Yes
Modalités de suivi des participants	Monitoring by convocation of the participant Monitoring by contact with the referring doctor
Appariement avec des sources administratives	No
Valorisation et accès	
Valorisation et accès	
Accès	
Existence d'un document qui répertorie les variables et les modalités de codage	Yes
Charte d'accès aux données (convention de mise à disposition, format de données et délais de mise à disposition)	Access requests to RaDiCo-IDMet data (rough / structured), biocollections or to analytic reports will be examined by the scientific committee following submission of a Specific Research Project (SRP) synopsis, as defined in the Resource Access Charter. Must be sent to idmet@radico.fr
Accès aux données agrégées	Access on specific project only
Accès aux données individuelles	Access on specific project only