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Reprogramming of rabbit somatic cells for species conservation

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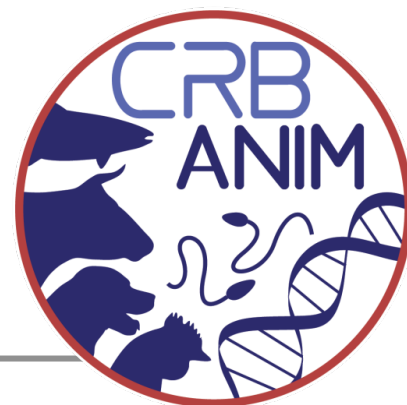
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Biennial Seminar 2015

February 9th & 10th 2015 – Paris



Day One (9 Feb 2015)

9h30 -10h00: Opening

Welcome Coffee in the posters room


(30')

10h00 – 10h40: Presentation of CRB-Anim Objectives and Governance

(30'+10')

Michèle Tixier-Boichard (INRA) - Project Coordinator

Session 1: Challenges for the preservation of animal genetic resources

10h40 - 11h20: Grand challenges for farm animal genetic resources and FAO expectations for an infrastructure such as CRB-Anim Paul Boettcher (Food and Agriculture Organization)  (30'+10')

11h20 – 12h00: Specific challenges for the preservation of genetic resources of aquaculture species Terrence R. Tiersch (Aquaculture Research Station)  (30'+10')

12h00 – 12h30: Presentation of WP3: current state of collections for livestock species (20'+10')

Coralie Danchin-Burge (Idele) – WP3 Leader

12h30 - 14h: Lunch – Cocktail

Session 2: Management of gene banks

14h00 – 14h40: How to improve cost-effectiveness and usefulness of gene banks for research and for the society? Harvey Blackburn (US Cryobank)  (30'+10')

14h40 – 15h10: Nagoya protocol and ABS procedures in Europe (20'+10')

Sarah Aubertie (FRB)

15h10 – 15h30: Presentation of WP4: current issues and plans for the quality management (10'+10')

Maelle d'Arbaumont (INRA) – Quality manager

15h30 – 16h00: Break in the posters room

Session 3: Genomics for domestic animals

16h00 – 16h40: Genomics of domestic animals: specific challenges regarding biomedical models

Tosso Leeb (Vetsuisse)  (30'+10')

16h40 – 17h00: Presentation of WP3: Interest of collections in CRB-Anim for biomedical models

Catherine André (CNRS) – WP3 Leader (10'+10')

17h00 – 17h20: Presentation of WP2.1: results and current issues

Marco Moroldo (INRA) - WP2.1 Leader (10'+10')

Session 4: Breeding and population genetics

17h20 – 18h00: Grand challenges for the management of genetic variability of domestic animals

Henner Simianer (Univ Goettingen)  (30'+10')

18h00 – 18h20: State of molecular characterization of CRB-Anim collections (WP5) (10'+10')

Michèle Tixier Boichard (INRA) - Project Coordinator & WP5 leader

18h20 – 18h40: Current projects and perspectives for WP7 (10'+10')

Coralie Danchin-Burge (Idele) – WP7 Leader



19h30: Dinner



Day Two (10 Feb 2015)

9h -9h30: Opening

Welcome Coffee in the posters room (30')

Session 5: Biotechnologies for cryobanking

9h30 - 10h10: The opportunities for genome editing in domestic species

Helen Sang (Roslin institute)  (30'+10')

10h10 – 11h00: Presentation of WP2.2: Several results (30'+20')

Elisabeth Blesbois (INRA), Catherine Labbé (INRA), Samuel Buff (VetAgro Sup) – WP2.2 Team

11h00 - 11h30: An ethical and philosophical viewpoint on CRB-Anim (20'+10')

Thomas Heams

Session 6: Strategies for collecting samples and data for CRB-Anim

11h30 – 12h00: Presentation of recommendations from CRB-Anim group species (20'+10')

Bertrand Pain (INSERM) – Scientific Committee Chairperson

12h00 – 12h30: Presentation of WP4: results and current issues for the information system (15'+15')

Aurélié Delavaud (FRB), Sylvain Marthey (INRA) – WP4 Leaders

12h30 – 13h30: Lunch – Cocktail – Poster session

Session 7: Training and education

13h30 - 14h10: Training issues when a range of different species is involved in an infrastructure Experience from the Czech Republic


Otomar Linhart (Univ of South Bohemia)  (30'+10')

14h10 – 14h30: Presentation of WP6: training strategy (10'+10')

Anne Duittoz (Univ Tours) – WP6 Leader

Session 8: Perspectives

14h30 - 15h10: Opportunities to extend the concept of CRB-Anim to other European genebanks

Sipke-Joost Hiemstra (Centre for Genetic Resources, the Netherland)  (30'+10')

15h10 – 16h10: Round-table discussion with members of international committee (chair: Bertrand Pain) (60')

Priorities for the end of the construction phase

Priorities regarding characterization (current projects and perspectives for WP5)

Priorities regarding use of collections

16h10 - 16h30 Concluding remarks: (10'+10')

Gilles Aumont and Daniel Boujard for INRA and CNRS

www.crb-anim.fr

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Reprogramming of rabbit somatic cells for species conservation

CRB-Anim WP2.2: Developments for somatic samples to be used for reproductive biology

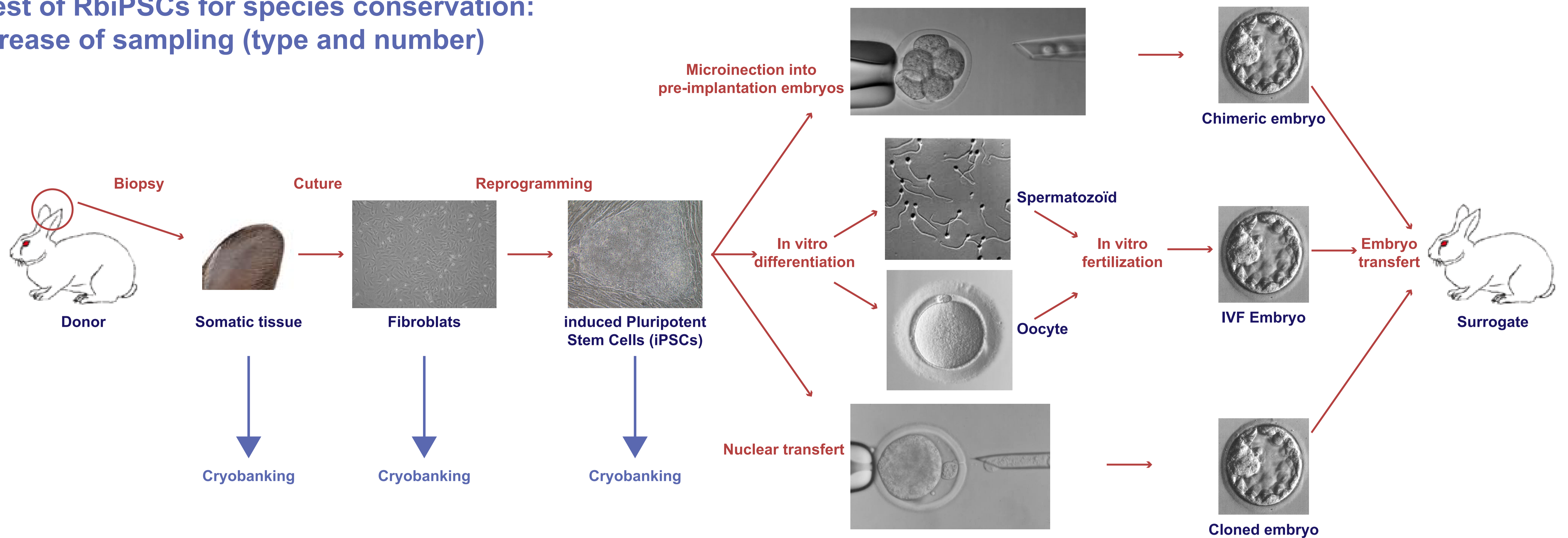
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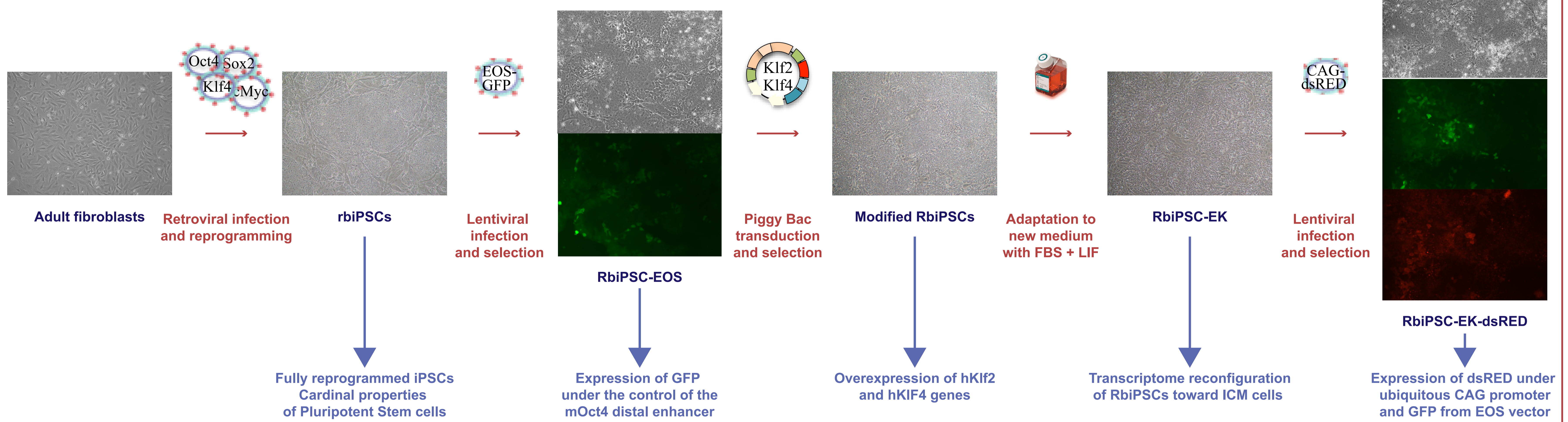
²ISARA-Lyon, F-69007 Lyon & VetAgroSup, UPSP ICE, F-69280 Marcy l'Etoile, France



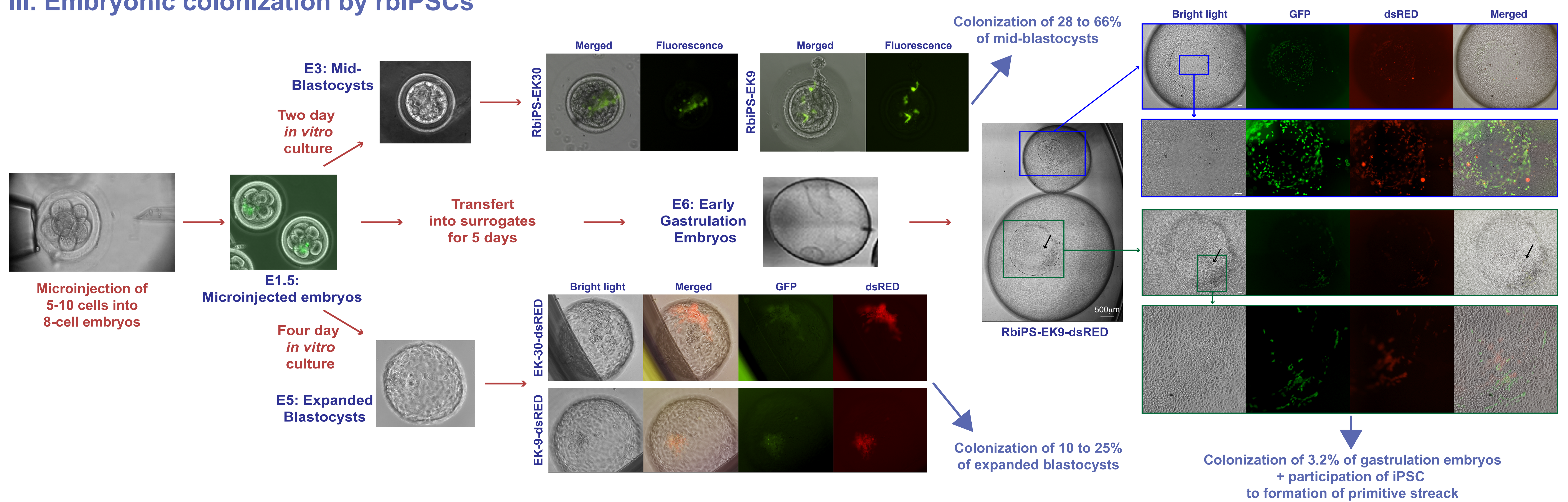
I. Interest of RbiPSCs for species conservation: increase of sampling (type and number)



II. Reprogramming of fibroblasts into RbiPSCs



III. Embryonic colonization by rbiPSCs



IV. Ongoing studies

1. Choice of donor tissues : skin fibroblasts or PBMC (Peripheral Blood Mononuclear Cells)
2. Definition of cryobanking conditions for donor tissues
3. Test of reprogramming conditions with non-integrative vectors (Sendai virus)
4. Improvement of iPSC colonization and chimaera formation