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Fundació Doctor Robert
UAB

Committee for Advanced Therapies

Dr Monica Ensini EURORDIS

Outline

1. **Implementation of the Advanced Therapy Regulation at the EMA:**
    1. the Committee for Advanced Therapies (CAT)
    2. Regulatory centralised procedures for Advanced Therapy Medicinal Products (ATMPs)

2. **Role of Patients' / Healthcare professionals' organisations in the CAT**

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How Policy Makers and Regulators approach Advanced Therapy Medicinal Products (ATMP)

Lack of harmonisation across Europe resulted in
Regulation (EC) No 1394/2007 on ATMP

Other EU legislations that apply to ATMP products:

- **Directive 2001/83/EC** (medicinal products for human use)
- **Regulation (EC) No 726/2004** (procedures for the authorisation and supervision of medicinal products for human and veterinary use and establishing a European Medicines Agency)
- **Directive 2001/20/EC** (clinical trials)
- **Directive 2005/28/EC** (good clinical practice, manufacture and import)
- **Directive 2003/94/EC** (good manufacturing practice)
- **Regulation (EC) No 1901/2006** (paediatric medicines)
- **Regulation (EC) 141/2000 on Orphan Drugs**

Regulation on Advanced Therapies (EC) No1394/2007

Legislation

Medical Devices Dir. 93/42/EEC ⟷ **Regulation on Advanced Therapies (EC) No1394/2007** ⟷ **Medicinal Products 2001/83/EC**

Science

Advanced Therapies

Medical Devices | **Tissue Engineering** | **Cell Therapy** | **Gene Therapy** | Biotech (e.g. recombinant insulin) | Pharmaceuticals (e.g. aspirin)

Evaluation

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Regulation on Advanced Therapies
Key elements

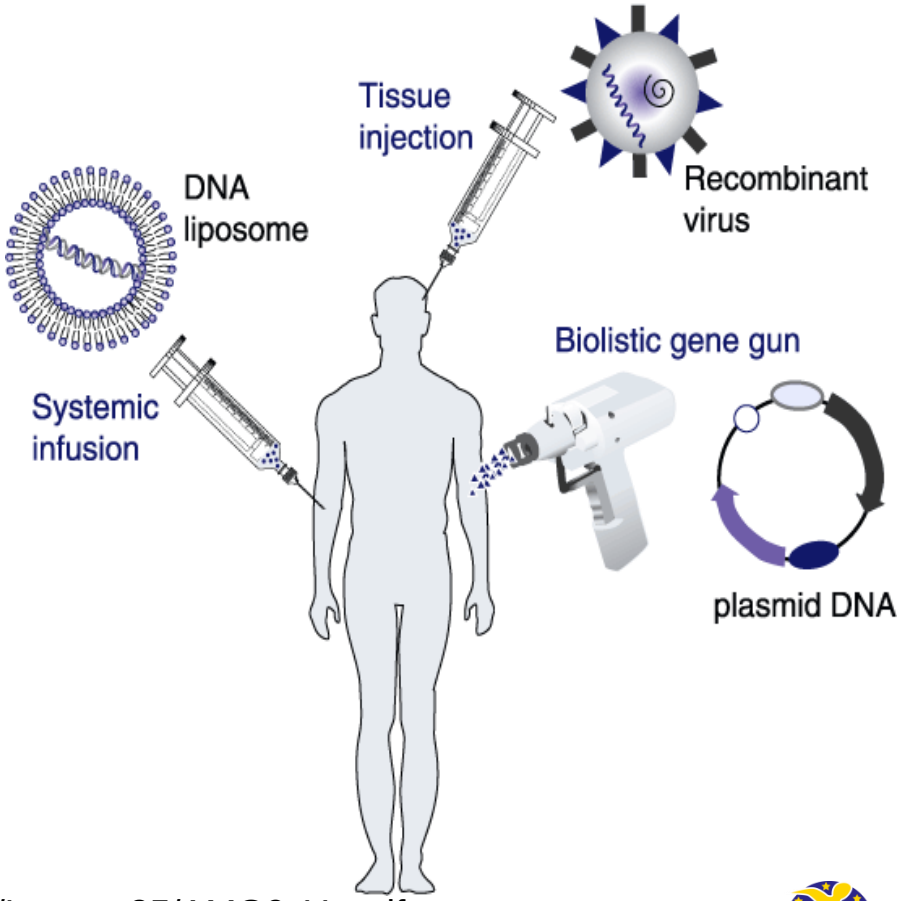
- **Advanced Therapy Medicinal Products (ATMP)**
  - Gene Therapy Products
  - Somatic Cell Therapy Products
  - Tissue Engineered Products
  - Combined ATMP

- **Principles of existing legislation on medicines apply to advanced therapies:**
  - Quality, Safety and Efficacy
  - Marketing authorisation
  - Post-authorisation vigilance

What is a gene therapy product?

- **Medicinal product that contains or consists of a recombinant gene administred with a view to regulating, repairing, replacing, adding or deleting a genetic sequence**

- **Type of gene therapy**
  - non-specific placement
  - swap/repair a gene
  - transcription regulation
- **Vectors**
  - viral/non-viral/hybrid
- **Transduction**
  - ex vivo / in vivo
  - target cells



http://www.biochem.arizona.edu/classes/bioc471/pages/Lecture25/AMG9.11a.gif

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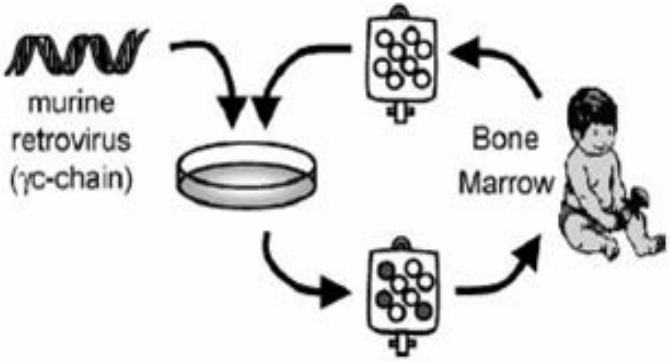
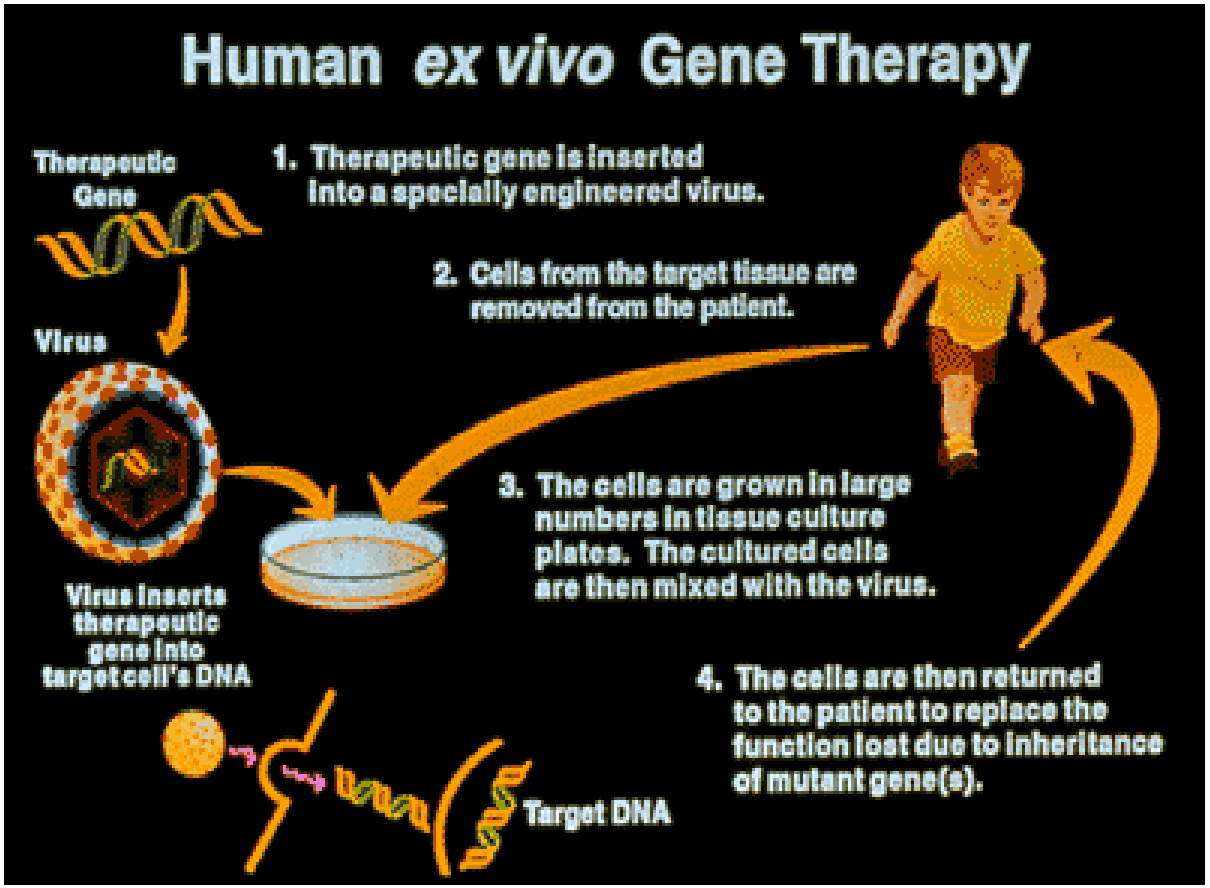
Ex vivo Gene therapy: treatment of SCID disease

SCID – severe combined immunodeficiency





http://history.nih.gov/exhibits/genetics/sect4.htm

http://athena.bioc.uvic.ca

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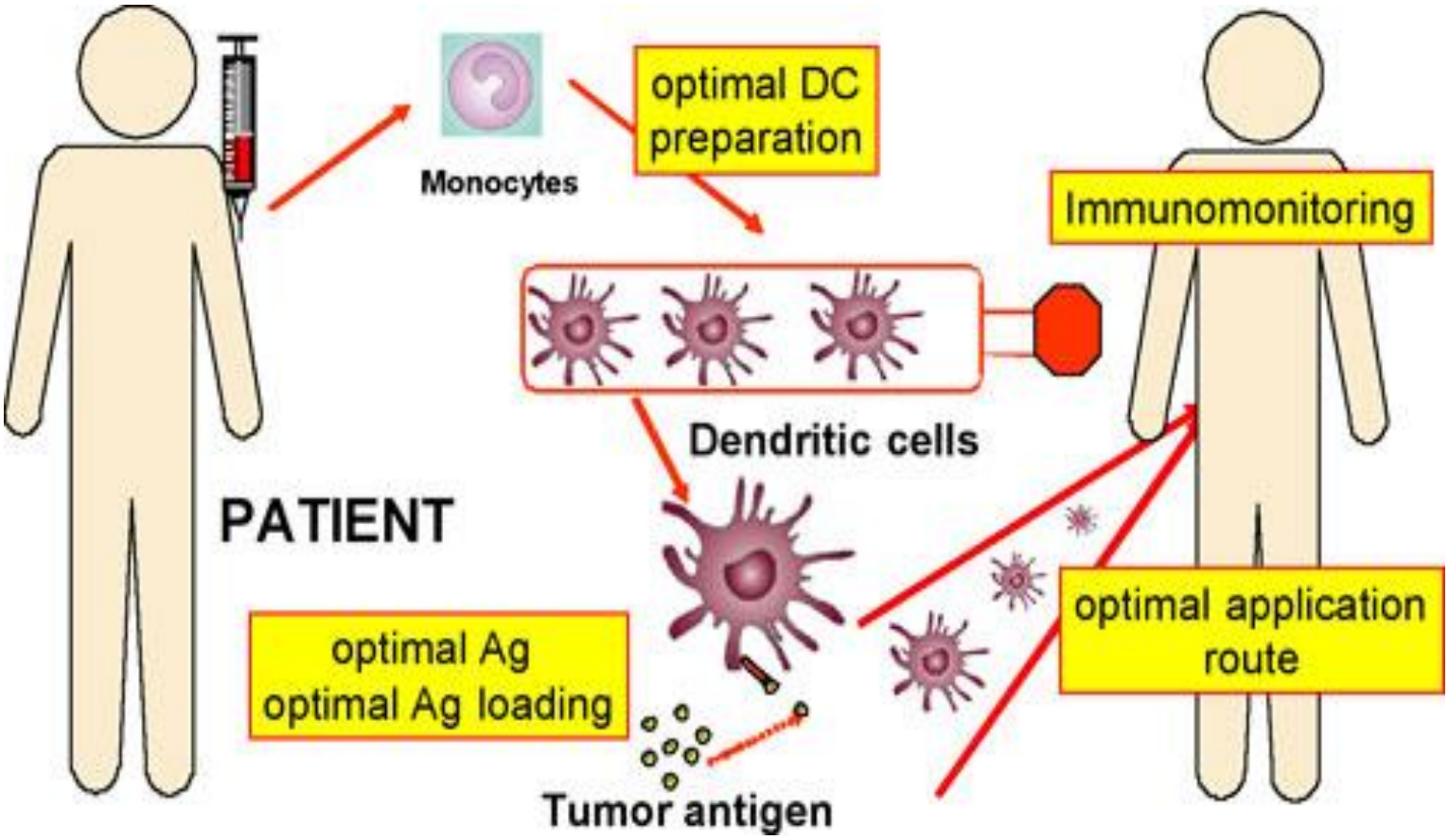
What is a somatic cell therapy product?

- **Medicinal product based on substantially manipulated cells or tissues or of cells or tissues that are not intended to be used for the same essential function(s) in the recipient and the donor**

  - Cells / tissues from patient itself, from another human or from animals
  - Manipulated (engineered) cells / tissues (non substantial: cutting, grinding, centrifugation, irradiation etc)
  - Scope: treating, preventing or diagnosing a disease through the pharmacological, immunological or metabolic action of its cells or tissues

Example: Cancer Cell therapy



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What is a Tissue Engineered product?

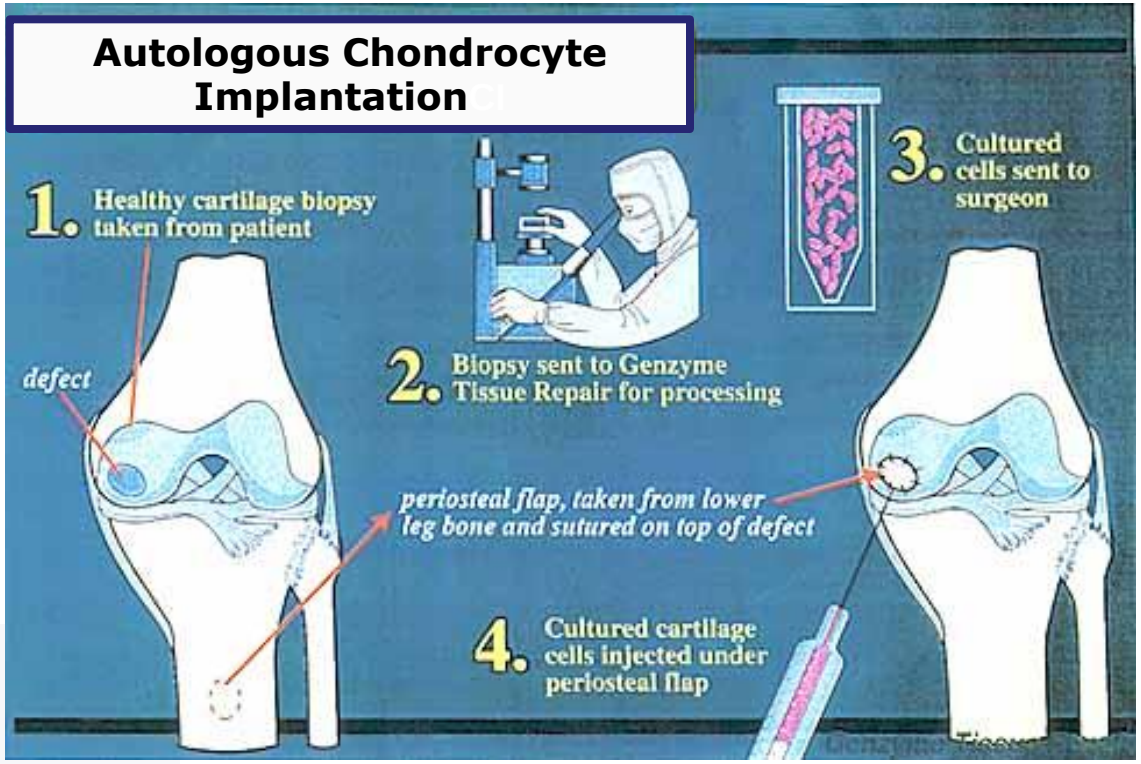
- **Tissue Engineered Products (TEP)**
  - Contain/consist of engineered cells/tissues
  - Administered to human to regenerate, repair or replace a human tissue

Examples:

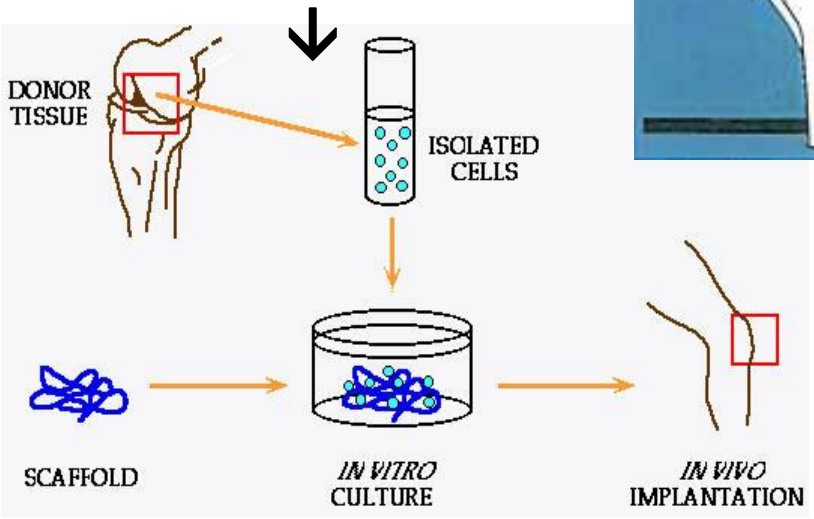
- Artificial skin (burn wounds)
- Cartilage repair
- Neo-organs

Example: Cartilage repair

First generation →



Second/third generation



MACI: matrix-induced autologous chondrocyte implantation
(Combined TEP)

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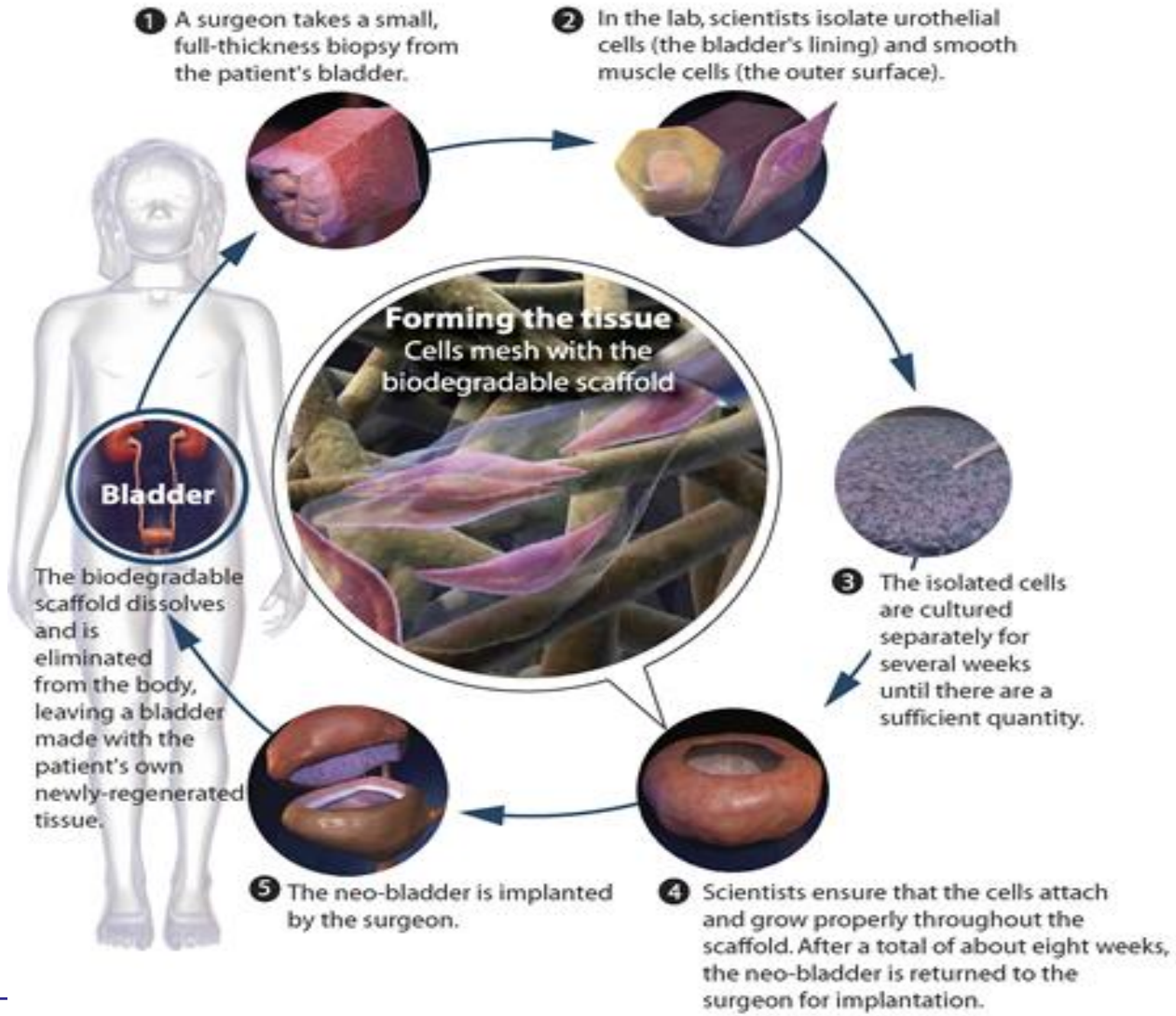
Engineering an Organ

Regenerative medicine technology has the potential to create a functional neo-organ using the patient's own cells to augment or replace a failing organ, for example a bladder.



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ATMP: summary of definitions

Gene therapy medicinal product:
- recombinant nucleic acid -> to regulating, repairing, replacing, adding or deleting a genetic sequence

Somatic cell therapy medicinal products:
-substantially manipulated cells/tissue -> to treat, prevent or diagnose a disease (pharmacological, immunological, metabolic action)

Tissue engineered product:
-substantially manipulated cells/tissue -> to regenerate repair or replace a human tissue

Combined ATMP:
- medical device + cell/tissue part

Committee for Advanced Therapies

« The Committee for Advanced Therapies (CAT) is the committee at the European Medicines Agency that is responsible for **assessing the quality, safety and efficacy** of advanced therapy medicinal products (ATMPs) and following scientific developments in the field. It is a multidisciplinary committee, gathering together some of the best available experts in Europe.
It was established in accordance with Regulation (EC) No 1394/2007 on ATMPs.»
http://www.ema.europa.eu

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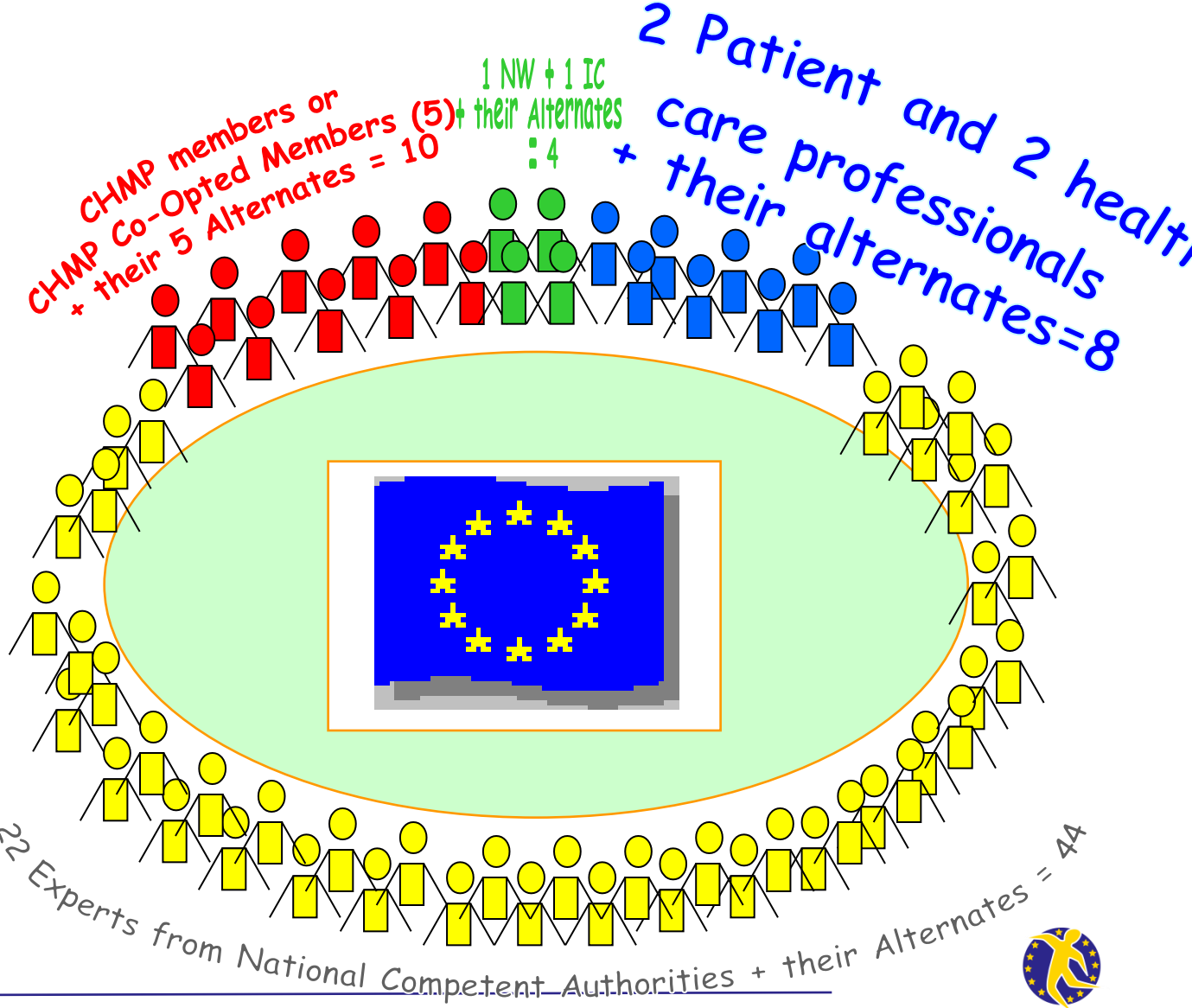
The Committee for Advances Therapies (CAT): Composition

CAT should cover the scientific areas relevant to advanced therapies, including:

- Medical devices
- Tissue engineering
- Gene therapy
- Cell therapy
- Biotechnology
- Surgery
- Pharmacovigilance
- Risk management
- Ethics.

[Recital 9 & Art.21]



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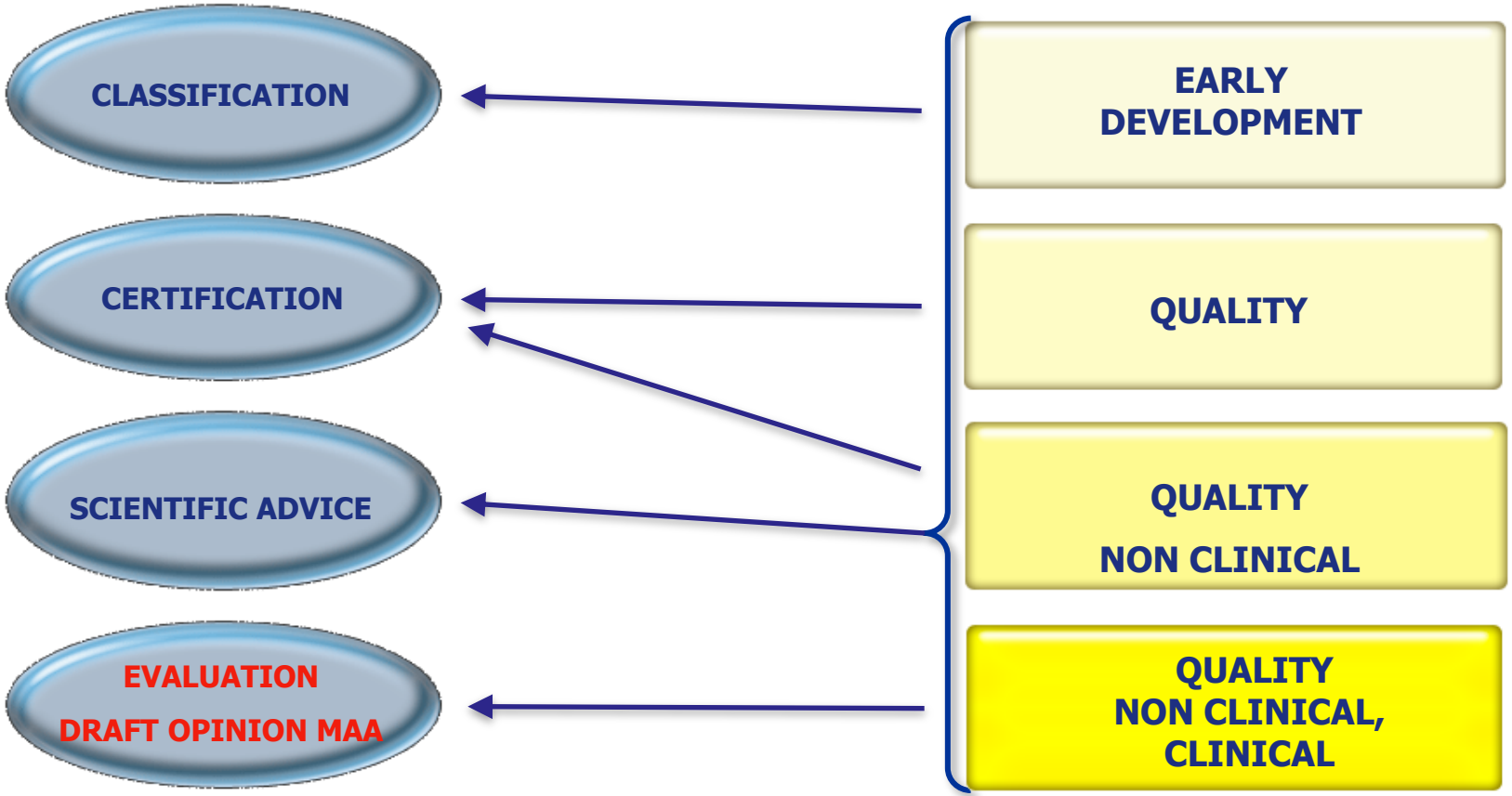
Role and Function of CAT



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Is my product an Advanced Therapy Medicinal Product (ATMP)?

- To define borderline cases

  e.g. with medical device, transplant, cosmetics.

- Incentive for applicants, not legal requirement

- Fast procedure (max 60 days)

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Are the data generated to date sufficient?

- Incentive for Small to Medium-sized Enterprises
- Assessment of early quality and non-clinical data
- Fast procedure (90 days), confidential
- Certificate may attract investments

Advice on product development

- Scientific Advice can be given on ANY scientific question
  - Quality, non-clinical and clinical
- At any time point of development
  - Post-marketing advice is also available
- Broad advice, Conditional approval and Exceptional circumstances
- Confidential

For ATMPs the Scientific Advice Working Party (SAWP) consults the CAT

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The product development is completed

- Principles of existing legislation on medicines apply to advanced therapies
- Centralised procedure mandatory
- CAT with specific expertise to evaluate MAAs
- Risk based approach
- Risk Management Plan and follow-up of safety and efficacy

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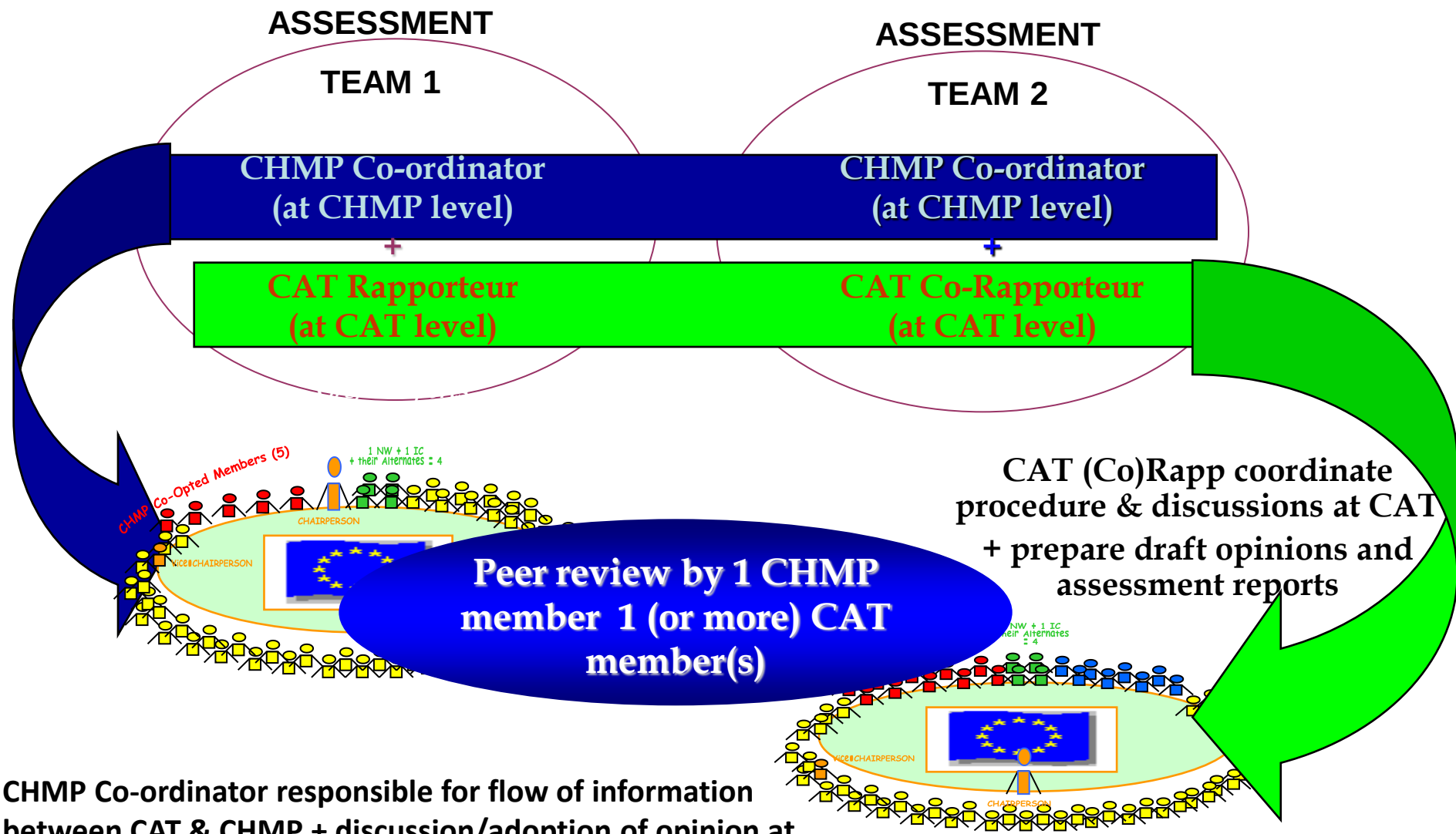
Evaluation Procedure



CHMP Co-ordinator responsible for flow of information between CAT & CHMP + discussion/adoption of opinion at CHMP

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EU Marketing Authorisation (MA) for ATMPs

A medicinal product may be placed on the market in the EU, when:

a marketing authorisation has been issued by the EU Commission via the Centralised Procedure (EMA)

or

it is delivered under hospital exemption, regulated by the competent authority of an EU Member State

22

Centralised Procedure for ATMPs

- 1 application to EMA → 1 scientific evaluation

- Scientific Committee:
  CAT + adoption by the CHMP

- Maximum legal time limit
  210 days evaluation (CAT Opinion + CHMP Opinion) + EU Commission Decision

- 1 Marketing Authorisation valid for the whole EU

- 1 Trade name and 1 Labelling (all EU languages)
  Summary of Product Characteristics
  User Package Leaflet
  Package Labelling

23

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Clinicians' & Patients' organisations in the CAT

- Second Public call for expression of interest:
  - closed on 1 December 2011 (2 Full Member + 2 Alternate Member for Clinicians; 2 Full Member+2 Alternate Member for Patients)
- Commission will review all applications and will prepare a draft Commission Decision
- Consultation of European Parliament
- Final Commission Decision: ???

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EMA Scientific Committees and Patients' Contribution

- Expertise: convey a combination of specific education, training and professional experience.
- Experience: convey practical disease knowledge obtained from direct contact with the disease
- Advocacy: act on behalf of the affected patients in defence of their rights; provide patient-oriented public health / healthcare policy perspective.
- Empowerment: Access to the information necessary to participate in the decision-making processes on behalf of all patients.

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Role of Patients representatives in the EU Centralized Procedures for ATMP

- **Full members of the CAT**
  - Vote on products / procedures
  - Stand for chair/vice-chair of CAT
  - Can be Rapporteur, Co-Rapporteur, Peer reviewer
  - Can take part of assessment team for:
    - MAA for ATMP
    - Re-registration of products legally on the market
    - Certification of Quality/Non-Clinical data
  - Can be Rapporteur for scientific guidelines

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Role of Patients representatives in the EU Centralized Procedures for ATMP

- Representing patients' voice
- Propose patients experts
- Bringing points of view and perspectives on Regulatory procedure
- Link outside POs useful for their specific expertise
- Points of view and real life experience of concerned patients
- Address issues that could concern lay people
- Involvement in all the Regulatory process including issues of post-marketing access.
- Propose actions beyond the regulatory framework: e.g. proposal for a CAT work programme addressing general issues related to ATMPs development

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CAT: where we are now

EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

30 June 2010
EMA/CAT/235374/2010
Patient Health Protection

Committee for Advanced Therapies (CAT) Work Programme 2010 - 2015

Introduction – Problem statement

New and emerging science has been identified as an important driver for progress and change in the European Medicine Agency's (EMA) Road Map to 2015[1].

It is generally well recognised in the international scientific arena and by regulators that advanced therapies are at the forefront of scientific innovation in medicine, offering potential groundbreaking new treatments for diseases and injuries of the human body.

The continuous scientific progress, for example in the field of cellular and molecular biology, has boosted the hope for highly innovative and improved therapies and has led in the last decade to intensive research and development in the field of gene therapy and regenerative medicine (including tissue engineering and somatic cell therapy). However, whilst science has revealed the potential, only

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CAT Objectives for the 2010-2015

- Facilitate development ATMP and submission of MAA: understand trends in research and development, strengthen dialogue with stakeholders, reinforce internal/external cooperation
- Promote the use of available regulatory procedures and introduce potential improvements
- Explore possibilities offered by the current regulatory framework when applied to ATMP
- Contribute to foster innovation
- Promote access and availability to ATMP

CONCLUSION

- ✓ ATMP Regulation implemented
- ✓ Clear framework for MAA for ATMP
- ✓ Proactive approach to address the needs of the sector
- ✓ Early dialogue between interested parties

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Thank you

Thanks you for your attention!

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