



The role of EMEA in Orphan Drug Development

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The European Medicines Agency

- EMEA is the European Union body responsible for the evaluation and supervision of medicines in Europe.
- Its main responsibility is the protection and promotion of public and animal health.
- The EMEA works as a network, bringing together the scientific resources of the Member States.
- The Agency cooperates closely with international partners on a wide range of regulatory issues (e.g. ICH, WHO, FDA, etc)
- The Agency was created in 1995 and is headquartered in London.

Drug Therapy in Rare Diseases

Persons suffering from rare diseases have the same rights as their fellow citizens to safe and effective therapies

Orphan Regulations

- Regulation (EC) No 141/2000 of the European Parliament and of the Council on Orphan Medicinal Products of 16 December 1999
- Commission Regulation (EC) No 847/2000 of 27 April 2000

What is an Orphan Medicinal Product

Orphan Medicinal Products

- for rare diseases (affecting less than 5 in 10,000 persons)
- development costs > expected return on investment
- life-threatening or very serious

Lack of sponsors developing orphan medicinal products

What are the EU incentives ?

Protocol Assistance

free scientific advice
to optimise development

Market Exclusivity

for 10 years after grant of
EU marketing authorisation

Centralised Procedure

direct access to EMEA
centralised procedure for
marketing authorisation

EU-Funded Research

grants from Community
& Member State programmes

Fee Reductions

reduction of centralised
regulatory fees via a special fund
from EU budgetary authority

Application for Orphan Designation

Application should demonstrate orphan criteria have been met:

- life-threatening or debilitating nature of condition
- medical plausibility
- prevalence < 5 in 10,000 or unlikely to generate sufficient return on investment
- no satisfactory methods exist or medicinal product will be of significant benefit

All claims should be substantiated by references

Committee for Orphan Medicinal Products (COMP)

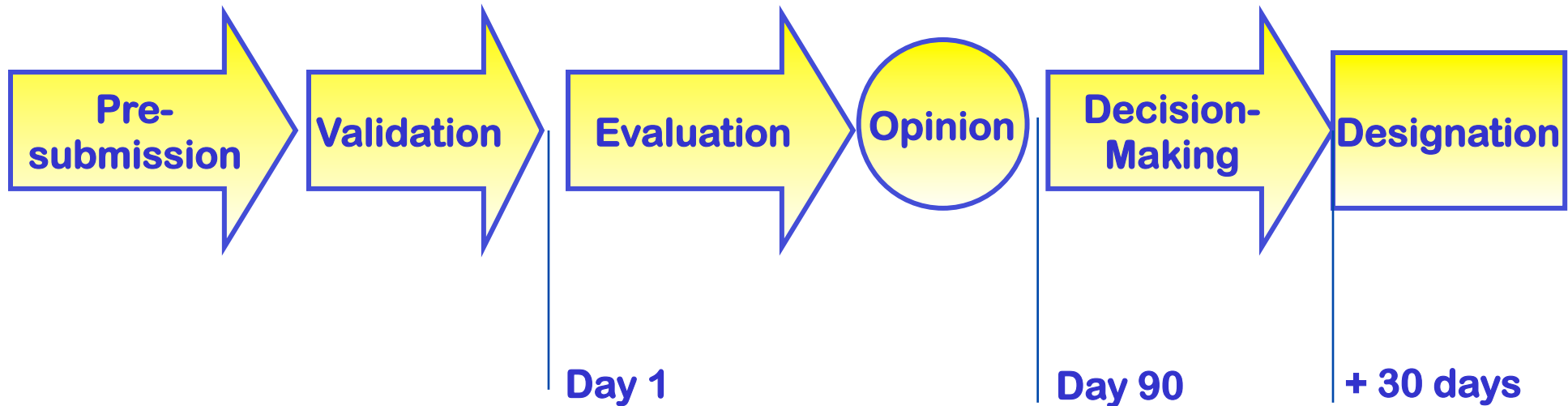
EMA Committee: 31 members + Chairman

- 1 Member per Member State
- 3 representatives from patients groups
- 3 members proposed by the EMA

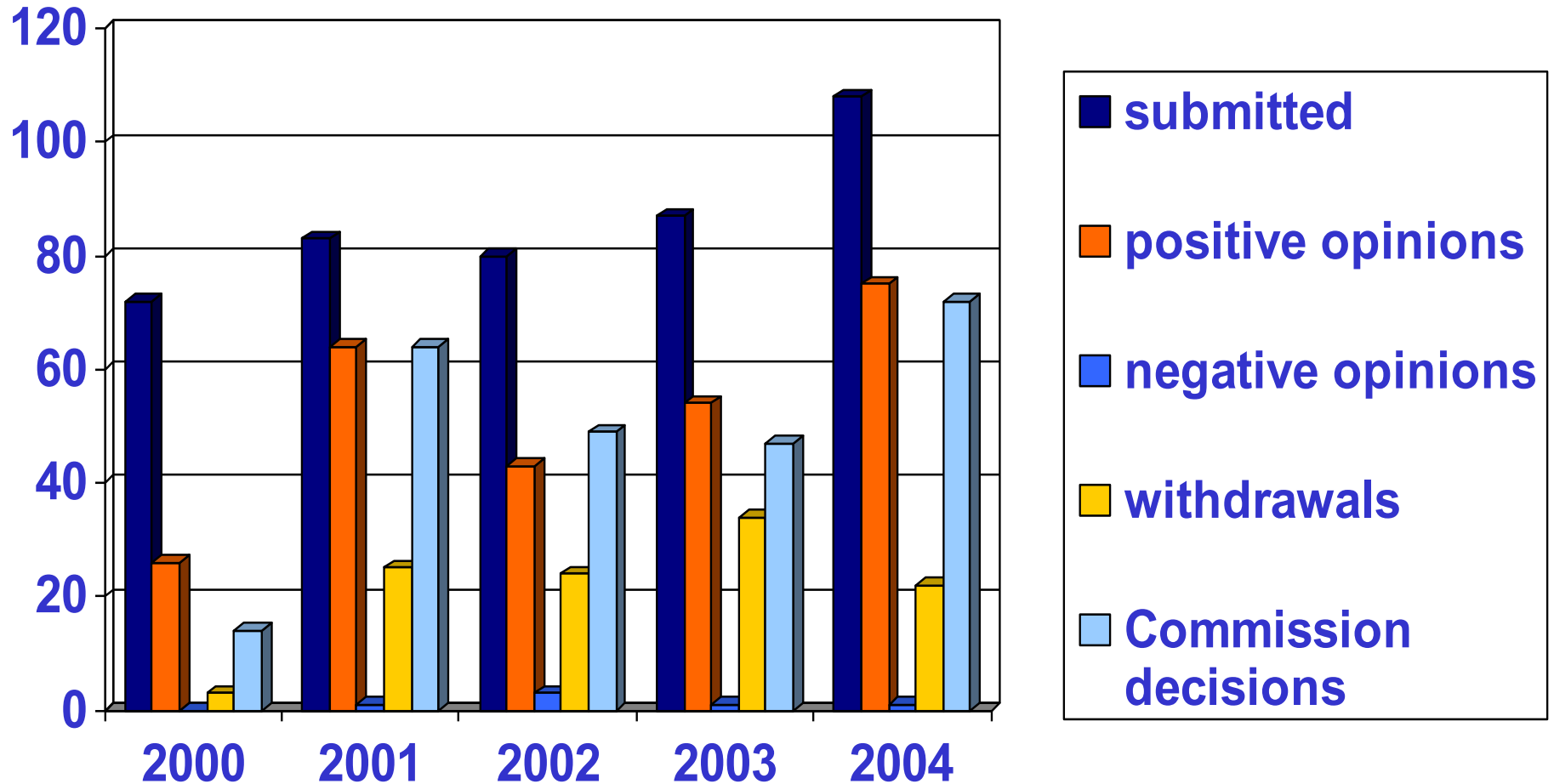
COMP responsible for:

- opinions on designation
- advising on general EU policies
- international co-operation

Procedure for Orphan Designation

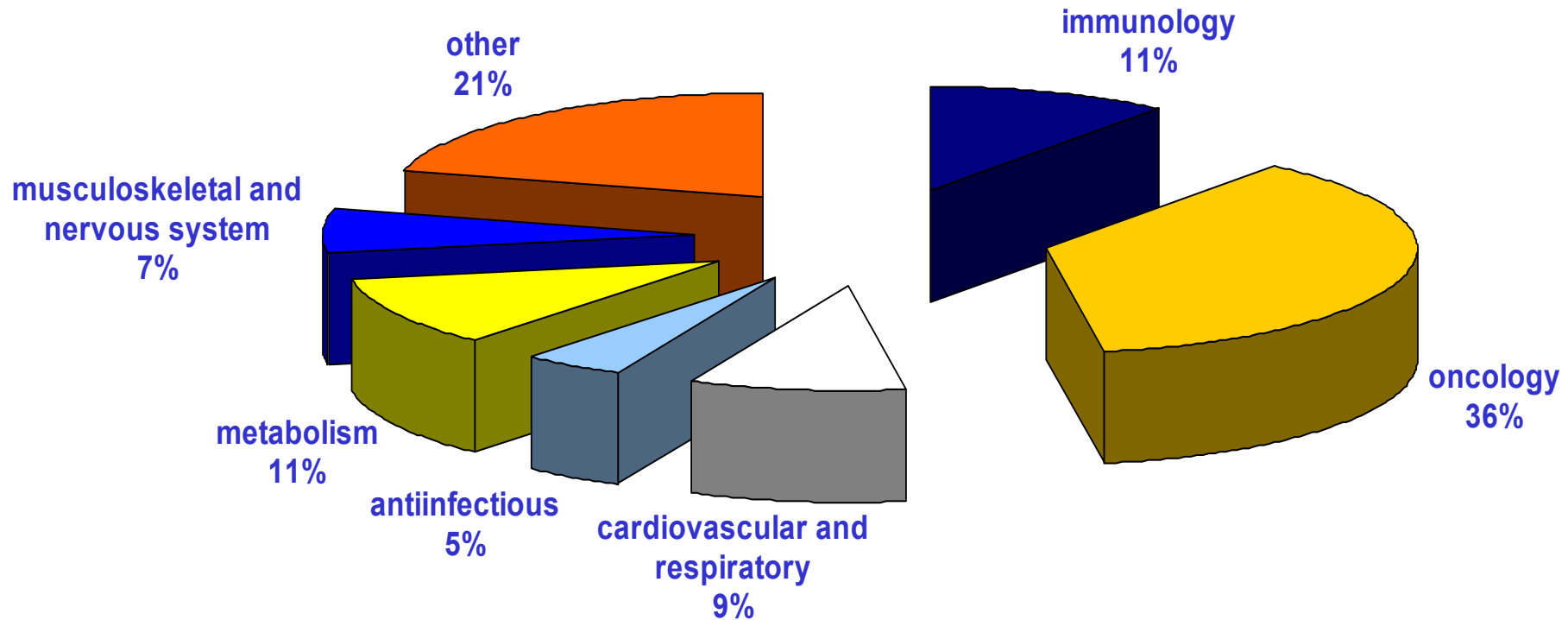



Status of Orphan Applications



Up to January 2005

Distribution of opinions



- | | |
|--|--|
|  immunology |  oncology |
|  cardiovascular and respiratory |  antiinfectious |
|  metabolism |  musculoskeletal and nervous system |
|  other | |

Up to December 2004

Opinions designated based on significant benefit

- Up to January 2005: 182 out of 262 opinions (69%) based on assumption of significant benefit over authorised treatments in the orphan condition
- Significant benefit to be reviewed at the time of Marketing Authorisation to maintain orphan status

Protocol Assistance

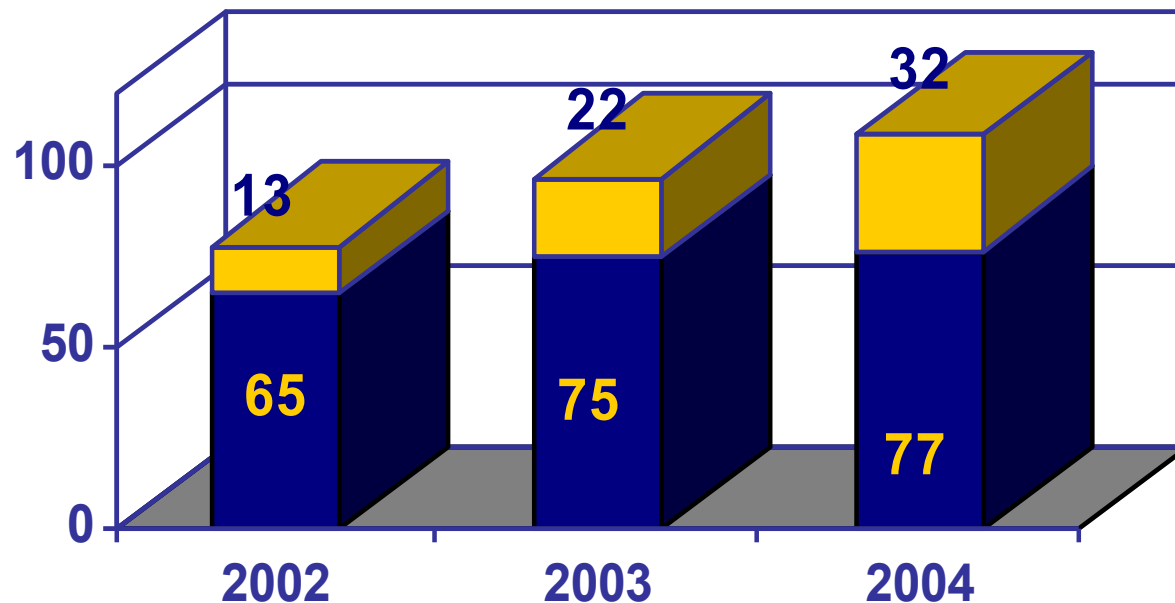
Article 6 of Regulation (EC) No 141/2000

- Protocol Assistance = Scientific Advice for companies developing Orphan Medicinal Products
- Revised procedure adopted by the CHMP 2003
- Implementation of changes from new Pharmaceutical Regulation by end 2005

Protocol Assistance – Key Features

- Systematic pre-submission meeting with the EMEA
- Oral explanations in the majority of cases
- Additional and specific expertise to participate in SAWP
- Involvement of 2 representatives of the Committee for Orphan Medicinal Products in SAWP (Significant Benefit issues)
- Fee reduction (currently 100% = free)

Scientific Advice / Protocol Assistance *Procedures*



Orphan Medicinal Products

Application for Marketing Authorisation (MAA)

At the stage of MAA:

- Filing can currently be through Mutual Recognition Procedure or Centralised Procedure
- To obtain Market Exclusivity MA must be granted by all Member States in Mutual Recognition
- In November 2005, Centralised filing obligatory
- Fee reductions are granted by some MS' s and by EMEA for centralised applications

Status of Orphan Marketing Authorisation Applications

18 authorisations granted to date

- Fabrazyme for Fabry disease
- Replagal for Fabry disease
- Glivec for chronic myeloid leukaemia
- Tracleer for pulmonary arterial hypertension
- Trisenox for acute promyelocytic leukaemia
- Somavert for acromegaly
- Zavesca for Gaucher disease
- Carbaglu for hyperammonaemia

Status of Orphan Marketing Authorisation Applications cont' d

- Aldurazyme for Mucopolysaccharidosis
- Busilvex for haematopoietic progenitor cell transplantation
- Ventavis for pulmonary arterial hypertension
- Onsena for Familial Adenomatous Polyposis
- Litak for Hairy cell leukaemia
- Lysodren for adrenal cortical carcinoma
- Pedea for Patent Ductus Arteriosus
- Photobarr for Barrett's oesophagus
- Wilzin for Wilson's disease
- Xagrid for Thrombocythaemia

Status of Orphan Marketing Authorisation Applications cont' d

Two CHMP Opinions in decision-making

- Orfadin for Hereditary tyrosinemia type 1
- Prialt for chronic pain

Three extensions of indication

- Glivec for Gastrointestinal Stromal Tumours
- Glivec for first line use in Chronic Myeloid Leukaemia
- Glivec for paediatric use in Chronic Myeloid Leukaemia

Nine centralised applications in review process

Four applications filed through Mutual Recognition

Overview of “evidence” in authorised products

- Data provided
 - in 28% of products phase III studies (double blind, randomised, placebo controlled)
 - in 44% of products phase II studies
- 61% of Marketing Authorisations granted under “exceptional circumstances”

Orphan Marketing Authorisations

