Office of Orphan Products Development

	FY 2004 Actual	FY 2005 Enacted	FY 2006 Estimate	Increase or Decrease
Program Level [1/]	**$15,895,400**	**$16,959,000**	**$16,959,000**	**0**
Grants [2/]	$13,192,000	$14,277,000	$14,277,000	0
Program Administration [3/]	$ 2,704,000	$2,682,000	$2,682,000	0

1/The Office of Orphan Products Development is shown for illustrative purposes and is not contained as a separate line item in the All Purpose Tables.

2/The Grants piece is part of the aggregate amount of budget authority contained in the CDER budget line item of the All Purpose Tables.

3/The Program Administration piece is part of the aggregate amount of budget authority contained in the Other Activities budget line item of the All Purpose Tables.

Historical Funding

Fiscal Year	Program Level
2002 Actuals	$13,364,000
2003 Actuals	$16,002,000
2004 Actuals	$15,895,400
2005 Estimate	$16,959,000
2006 Estimate	$16,959,000

Does not include GSA Rent or Other Rent and Rent Related Activities.

STATEMENT OF BUDGET REQUEST

The Office of Orphan Products Development is requesting $16,959,000 in program level resources for accomplishing the four functional activities of its mission:

- Review and designate qualified drugs and biologics as Orphan Products;
- Review and designate qualified medical devices as a Humanitarian Use Devices;
- Award and administer grants for clinical research studies of promising new orphan drugs, biologics, medical devices and medical foods for rare diseases and conditions; and,
- Determine whether a request for formal research protocol assistance (research on a treatment for a rare disease) qualifies for consideration.

PROGRAM DESCRIPTION

The Orphan Drug Act (ODA) (P.L. 97-414) amended the Federal Food, Drug, and Cosmetic Act, as of January 4, 1983, and established that the Federal government would provide incentives to assist and encourage the identification, development, and availability of orphan drugs. Under ODA, the law guarantees the developer of an orphan product seven years market exclusivity for a specific indication following the approval of the product by FDA.

Orphan drugs, as defined by the ODA, are drugs for the safe and effective treatment of rare diseases/disorders affecting fewer than 200,000 people in the U.S., or affecting more than 200,000 persons but not expecting to recover development costs, plus a reasonable profit, within seven years following FDA approval. There are an estimated 6,000 rare diseases that affect more than 25 million people in the U.S. Between 85 and 90 percent of which are serious or life-threatening. Orphan drugs provide important breakthroughs for patients who would otherwise be left lacking therapy. One example is the approval of Fabryzme for the treatment of Fabry's disease, which is a rare life-threatening genetic disease.

In 1982, FDA created the Office of Orphan Products Development (OPD) whose functions have assisted the private sector in producing orphan products (drugs, biologics, medical devices, and medical foods) necessary to treat a patient population that otherwise would be considered too small for profitable research, development, and marketing.

RATIONALE FOR BUDGET REQUEST

This request for budget authority supports various activities that contribute to the accomplishment of program outputs, and presents FDA's justification of base resources and selected FY 2004 accomplishments by strategic goals.

JUSTIFICATION OF BASE

USING RISK-BASED MANAGEMENT PRACTICES

The Orphans Product Development (OPD) program is responsible for promoting the development of products that demonstrate promise for the diagnosis and/or treatment of rare diseases or conditions. The Office of Orphan Products Development (OOPD) operates the OPD Program by administering an orphan product designation process, providing research study design assistance to sponsors of orphan products, encouraging sponsors to conduct open protocols (allowing patients to be added to ongoing studies), and managing a clinical research grants program. The OPD supports FDA's Strategic Plan by improving the efficiency of translating new discoveries into safe and effective treatments for patients.

Generic Name	Trade Name	Indication
iron(III)-hexacyanoferrate(II)	Radiogardase	Treatment of patients with known or susupected internal contamination with radioactive or non-radioactive cesium or thallium
Tinidazole	Tindamax	Treatment of amebiasis
multi-vitiam infusion without vitamin K	M.V.I.-12	Prevention of vitamin deficiency and thromboembolic complications in people receiving home parenteral nutrition and warfarin-type anticoagulant therapy
Diethylenetriaminepentaacetic acid (DTPA)		Treatment of patients with known or suspected internal contamination with plutonium, americium, or curium to increase the rates of elimination.

Grants:

Since its inception, 39 orphan products have been approved using data obtained from OPD grants. Most recent was an expandable rib prosthesis for thoracic insufficiency syndrome in children.

Another benefit from the OPD grant funded studies has been the hundreds of publications in peer-review journals that has come about that have changed the state of medical care for Americans with rare diseases/conditions.

The $14.392 million appropriated in FY 2005 for research will be used to fund 11 to 14 new grants and maintain approximately 60 ongoing grant-funded clinical study projects. The number of grants awarded has been decreasing year over year as a result of continued increases in the cost of clinical trials.

In 2004, there were 90 grant applications received. Although the number of grants awarded is slowly declining, the number of applications to be reviewed and scored has steadily increased since 2000.

Grants:

The OPD grant program is a proven method of successfully fostering and encouraging the development of new safe and effective medical products for rare diseases/conditions in a timely manner with a very modest investment. The major activities include:

- Review grant applications by OPD staff to ensure program requirements are met;
- Coordinate and convene peer review panels to provide technical review of grant proposals;
- Select grant applications for funding; and,
- Monitor the grant-funded products to satisfy regulatory and program requirements.

Program Administration:

The OPD program manages an orphan product designation process, provides research study design assistance to sponsors of orphan products and encourages sponsors to conduct open protocols (thereby allowing patients to be added to ongoing studies. The major activities include:

- Administers a process for orphan and humanitarian use device[1] designations;
- Serves as an intermediary between sponsors and FDA medical product review divisions in the drug development process to help resolve outstanding problems, discrepancies, or misunderstandings that often complicate review division/sponsor relationships;
- Provides expertise in clinical trial design and outcome review; and,
- Assists patients and advocacy groups on issues addressing rare diseases and orphan products.

[1] A Humanitarian Use Device (HUD) designation from OPD is required for a device sponsor prior to applying for a HUD designation from FDA. An Humanitarian Device Exemption (HDE) for a specific device allows the sponsor to bring the device to market for a very small population (usually less than 4,000 people in the U.S.) after demonstrating the safety and probable benefit of the device. The sponsor is exempt from meeting other requirements of the Safe Medical Devices Act.

SELECTED FY 2004 ACCOMPLISHMENTS

USING RISK-BASED MANAGEMENT PRACTICES

Program Administration:

Of the 1,427 orphan designations issued by OPD, as of January 5, 2005, 265 have resulted in marketing approval with orphan exclusivity. The 1983, these products are now available to treat a potential patient population of more than 13 million Americans. In contrast to this pace of designating drugs to treat rare diseases, the decade prior to 1983 saw fewer than 10 such products come to market.

The number of Orphan Product designation applications is continuing to increase dramatically. In FY 2004, there were 160 applications, a record number, representing a 30 percent increase over the average (124/year) of the prior four years. These include potential treatments for anthrax, dysteria, cystic fibrosis, and West Nile Virus. Of these, thirteen orphan designated products were approved for marketing (see table below). This number is expected to increase in future years as more new drugs are developed that are targeted at specific genetic disorders.

Since the HUD regulations took effect in October 1996, OPD has received 148 applications and designated 45 devices. Of the 45 designated devices, 37 have been approved for an HDE and the number of HUD designation applications is also continuing to increase. In 2003, there were 32 applications, which was double the average of the prior three years. In 2004, 25 HUD applications were received and 5 were designated, including a pediatric blood pump for a failing heart.

List of FY 2004 Orphan Product Approvals

Generic Name	Trade Name	Indication
Botulism immune globulin	BabyBIG	Treatment of infant botulism.
Apomorphine HCl	Apokyn	Treatment of the on-off fluctuations associated with late-stage Parkinson's disease.
Somatropin (r-DNA)	Serostim	For use alone or in combination with glutamine in the treatment of short bowel syndrome.
Glutamine	NutreStore	For use with human growth hormone in the treatment of short bowel syndrome (nutrient malabsorption from the gastrointestinal tract resulting from an inadequate absorptive surface).
pemetrexed disodium	Alimta	Treatment of malignant pleural mesothelioma
acetylcysteine	Acetadote	For the intravenous treatment of moderate to severe acetaminophen overdose
azacitidine	Vidaza	Treatament of myelodysplastic syndromes
tinidazole	Tindamax	Treatment of giardiasis
cinacalcet	Sensipar	Treatment of hypercalcemia in patients with parathyroid carcinoma

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