CBER Pediatric Study Deferrals and Deferral Extensions[1]

This report provides the number of pediatric study deferrals requested[2], the number of deferrals granted[3], the number of deferral extensions requested, the number of deferral extensions granted, and a table detailing the granted deferrals and deferral extensions, through 12/31/18. The information in the table is presented in the order the deferrals were granted, with the most recently granted deferral listed first.

Total deferrals[4] requested: 47
Total deferrals granted: 52
Total deferral extensions[5] requested: 20
Total deferral extensions granted: 18

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
125668/0	Octapharma Pharmazeutika Produktionsges. m.b.H.	Immune Globulin Subcutaneous (Human) - hipp **CUTAQUIG**	12/12/2018	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	12/31/2020	
125587/0	Octapharma USA, Inc.	Immune Globulin Intravenous (Human) – ifas **Panzyga**	8/2/2018	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	10/31/2022	
125640/0	Instituto Grifols, S.A.	Fibrin Sealant (Human)	11/1/2017	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	6/30/24	
125201/728	CSL Behring AG	Immune Globulin Intravenous (Human), 10% Liquid	9/14/2017	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	7/31/23	
125613/0	Kamada Ltd.	Rabies Immune Globulin (Human)	8/23/2017	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	1/15/21	
125612/0	Octapharma Pharmazeutika Produktionsges. m.b.H.	Fibrinogen (Human)	6/7/2017	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	6/30/21	

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
125592/0	ALK - Abello A/S	House Dust Mites Allergenics Extract	3/1/2017	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	7/1/22	
					n/a	n/a	7/1/22	
125603/0	Vericel Corporation	Autologous Cultured Chondrocytes Seeded on a Porcine Collagen Membrane - **MACI**	12/13/16	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	12/31/25	
125392/163	Ethicon, Inc.	Fibrin Sealant Patch - **EVARREST**	10/7/16	Ready for approval for use in adults before pediatric studies are complete	1/29/2019	Delays involving study participants, sites, and /or management due to difficulty recruiting eligible pediatric subjects	3/31/2021	
125285/194	Protein Sciences Corporation	Influenza Vaccine - **FluBlok**	10/7/16	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	6/30/20	
125254/565	bioCSL Pty Ltd	Influenza Vaccine - **AFLURIA**	8/26/16	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	12/31/16	12/31/2016
					n/a	n/a	12/31/17	12/31/2017
125597/0	PaxVax Bermuda Ltd	Cholera Vaccine Live Oral - **Vaxchora**	6/10/16	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	6/30/19	
125408/127			5/23/16	Ready for approval in persons 4 yrs to <18 yrs of	n/a	n/a	2/28/21	

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
	Novartis Vaccines and Diagnostics, Inc.	Influenza Vaccine - **Flucelvax Quadrivalent**		age and the pediatric study in children 6 mons to <4 yrs of age has not been initiated.	n/a	n/a		
125408/101	Novartis Vaccines and Diagnostics, Inc.	Influenza Vaccine - **Flucelvax**	5/23/16	Ready for approval in persons 4 yrs to <18 yrs of age and the pediatric study in children 6 mons to <4 yrs of age has not been initiated.	n/a	n/a	2/28/21	
125549/17	Wyeth Pharmaceuticals Inc.	Meningococcal Group B Vaccine - **TRUMENBA**	4/14/16	Two-dose regimen is ready for approval for use in persons 10 through 25 years of age and the study in children 1 year to less than 10 years of age has not been completed.	n/a	n/a	5/31/21	
125510/0	Novartis Vaccines and Diagnostics, Inc.	Influenza Vaccine, Adjuvanted - **FLUAD**	11/24/15	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	4/30/19	
					n/a	n/a	4/30/19	
					n/a	n/a	2/28/23	
					n/a	n/a	2/28/23	
125566/0	Baxter Healthcare Corporation	Antihemophilic Factor (Recombinant),	11/13/15	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	6/30/16	12/22/16

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
		PEGylated - **ADYNOVATE**			n/a	n/a	12/31/17	12/22/16
					n/a	n/a	9/30/19	
125523/0	ProFibrix, BV.	Fibrin Sealant (Human) - **Raplixa**	4/30/15	ineffective or impractical in pediatric patients ages 0 to 18 years	9/8/16	Because of delays involving study participants, sites, and/or management.	~~3/31/16~~ 12/31/18	10/11/2018 (released)
125426/31	Aptevo Bio Therapeutics LLC	Coagulation Factor IX (Recombinant) - **IXinity**	10/17/2018	Ready for approval for use in adults before pediatric studies are complete	10/17/2018	Delays due to issues with the study drug and delays involving study participants, sites, and management	12/14/2021	
125426/0	Cangene Corporation	Coagulation Factor IX (Recombinant) - **IXinity**	4/29/15	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	12/31/17	1/20/2016 (released & replaced with supplement # 31)
125392/33	Ethicon, Inc.	Fibrin Sealant Patch - **EVARREST**	3/26/15	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	3/31/17	3/31/2017
125546/0	Novartis Vaccines and Diagnostics, Inc.	Meningococcal Group B Vaccine - **BEXSERO**	1/23/15	The product is ready for approval for use in persons 10 through 25 years of age and the studies in children 6 weeks to less than 10 years of age have not been completed.	n/a	n/a	12/31/15	12/31/2015
					n/a	n/a	3/31/18	

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
125471/0	Stallergenes, Inc.	Sweet Vernal, Orchard, Perennial Rye, Timothy, and Kentucky Blue Grass Mixed Pollens Allergen Extract - Oralair	4/1/14	Ready for approval for use in adults before pediatric studies are complete	7/15/16	Because of delays involving study participants, sites, and/or management	~~12/31/16~~ 12/31/17	
125478/0	Merck Sharp & Dohme Corp.	Short Ragweed Pollen Allergen Extract - Ragwitek	4/17/14	Ready for approval for use in adults before pediatric studies are complete	n/a	n/a	9/30/19	
					n/a	n/a	9/30/19	
125402	Baxter Healthcare Corporation	Immune Globulin Infusion (Human), 10% with Recombinant Human Hyaluronidase - HYQVIA	9/12/2014	The pediatric study should be delayed until additional safety data pertaining to Recombinant Human Hyaluronidase immunogenicity are available.	n/a	n/a	7/31/27	
125549/0	Wyeth Pharmaceuticals Inc.	Meningococcal Group B Vaccine - TRUMENBA	10/29/14	Ready for approval for use in adults before pediatric studies are complete	1/30/2017	Because of delays involving study participants, sites, and/or management	~~2/28/17~~ 12/31/17	
					1/30/2017	Because of delays involving study participants, sites, and/or management	~~8/30/17~~ 5/31/18	
					n/a	n/a	5/31/20	
125419/0	ID Biomedical Corporation of Quebec	Influenza A (H5N1) Virus Monovalent	11/22/13	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	~~4~~/30/15	9/9/16

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete [10]
		Vaccine, Adjuvanted			n/a	n/a	06/30/19	9/9/16 (released)
					n/a	n/a	10/31/20	9/9/16 (released)
					n/a	n/a	12/31/22	
125163/254	ID Biomedical Corporation of Quebec	**FluLaval** Influenza Virus Vaccine	08/16/13	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	03/31/16	1/27/16
125163/253	ID Biomedical Corporation of Quebec	**FluLaval Quadrivalent** Influenza Virus Vaccine	08/15/13	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	03/31/16	1/27/16
125446/0	Baxter Healthcare Corporation	**Rixubis** Coagulation Factor IX (Recombinant)	06/26/13	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	01/31/14	11/13/13
125416/0	Octapharma Pharmazeutika Produktionsges. m.b.H.	**Octaplas** Pooled Plasma (Human), Solvent/ Detergent Treated	1/17/2013	Ready for approval for use in adults before pediatric studies are complete.	8/10/16	Because of delays involving study participants, sites, and/or management	~~9/30/16~~ 7/31/18	
					9/1/2017	Because of delays involving study participants, sites, and/or management	~~10/31/17~~ 10/31/20	

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
125285/0	Protein Sciences Corporation	**FluBlok** Influenza Vaccine	1/16/13	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	11/30/15	2/2/16 (released and replaced with supplement # 194)
					n/a	n/a	06/30/17	10/7/16 (released & replaced with supplement # 194)
125389/0	Biotest Pharmaceuticals Corporation	**Bivigam** (Immune Globulin Intravenous (Human)	12/19/12	Ready for approval for use in adults before pediatric studies are complete.	11/18/16	Because of delays due to issues with the study drug and/or comparator drug	~~10/31/17~~ 6/30/21	
125127/513	GlaxoSmithKline Biologicals	**Fluarix Quadrivalent** (Influenza Virus Vaccine)	12/14/12	Ready for approval for use in adults before pediatric studies are complete.	8/23/13	Delays involving study participants, sites, and/or management	~~3/31/14~~ 12/31/15	
					11/16/15 2nd extension	Additional time required to prepare the study report and/or submission	~~12/31/15~~ 1/31/17	1/19/17

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
125392/0	Ethicon, Inc.	**EVARREST** (Fibrin Sealant Patch)	12/5/12	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	3/31/17	10/7/16 (released & replaced under supplement #163)
125408/0	Novartis Vaccines and Diagnostics GmbH	**Flucelvax** (Influenza Vaccine)	11/20/12	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	5/31/14	5/28/14
					n/a	n/a	11/30/14	11/20/14
					n/a	n/a	11/30/16	11/30/16
					n/a	n/a	11/30/18	5/23/16 (released & replaced with supplement # 101)
125400/0	Organogenesis, Inc.	**GINTUIT** (Allogeneic Cultured Keratinocytes and Fibroblasts in Bovine Collagen)	3/9/12	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	3/31/17	PREA non compliance letter issued on 6/29/17
103738/5074	SmartPractice Denmark ApS	**T.R.U.E. Test** (Multiple Products: Allergen Patch Test Kit - Thin Layer Rapid Use Epicutaneous Test)	2/29/12	Ready for approval for use in adults before pediatric studies are complete.	12/30/13	Delays involving study participants, sites, and/or management	~~12/31/13~~ ~~12/31/15~~ 3/16/16	8/25/17

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
125384/0	Kedrion, S.p.A.	**Kedbumin** (Albumin (Human)	6/3/11	Ready for approval for use in adults before pediatric studies are complete.	2/3/14	Delays involving study participants, sites, and/or management	~~12/31/13~~ 5/31/15	(released on 7/15/15)
125280/19	Intercell AG	**Ixiaro** (Japanese Encephalitis Virus Vaccine Inactivated)	10/14/10	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	6/30/15	6/30/15
125046/619	Grifols Therapeutics Inc.	**Gamunex** (Immune Globulin Intravenous (Human), 10%, Caprylate/ Chromatography Purified (IGIV-C))	10/13/10	Ready for approval for use in adults before pediatric studies are complete.	12/27/13	Delays involving study participants, sites, and/or management	~~2/13/14~~ 6/30/14	2/4/15
125351/0	Takeda Pharma A/S	**TachoSil** (Fibrin Sealant Patch)	4/5/10	Ready for approval for use in adults before pediatric studies are complete.	7/3/13	Delays involving study participants, sites, and/or management	~~12/31/12~~ 2/28/14	6/19/14
125350/0	CSL Behring AG	**Hizentra** (Immune Globulin Subcutaneous (Human), 20% Liquid) *Injectable*	3/4/10	Ready for approval for use in adults before pediatric studies are complete.	6/28/13	n/a	8/31/10	8/20/10

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
125324/0	Wyeth Pharmaceuticals Inc.	**Prevnar 13** (Pneumococcal 13-valent Conjugate Vaccine (Diphtheria CRM197 Protein)) *Injectable*	2/24/10	Other - Ready for approval for routine immunization in infants and children 6 weeks through 5 years of age, and the pediatric study in children 6 through 16 years of age is not complete.	n/a	n/a	12/31/11	3/28/12
125300/0	Novartis Vaccines and Diagnostics, Inc.	**Menveo** (Meningococcal [Groups A, C, Y, and W 135] Oligosaccharide Diphtheria CRM197 Conjugate Vaccine) *Injectable*	2/19/10	Other - Ready for approval for use in adults and adolescents, and pediatric studies for younger age groups of 2 months through 10 years are not complete.	n/a	n/a	3/31/10	4/1/10
					n/a	n/a	3/31/11	4/13/11
					n/a	n/a	3/31/11	4/13/11
					6/28/13	Delays involving study participants, sites, and/or management	~~12/31/11~~ 1/30/13	1/30/13
					6/28/13	Delays involving study participants, sites, and/or management	~~7/31/12~~ 1/30/13	1/30/13
125297/0	Novartis Vaccines and Diagnostics, Inc.	**Agriflu** (Influenza Vaccine) *Injectable*	11/27/09	Ready for approval for use in adults before pediatric studies are complete.	7/9/13	Delays involving study participants, sites, and/or management	~~1/31/12~~ 2/28/13	2/28/13
					7/9/13	Delays involving study participants, sites, and/or management	~~1/31/13~~ 7/31/13	8/1/13

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
125259/0	GlaxoSmithKline Biologicals	**Cervarix** (Human Papillomavirus Bivalent (Types 16 and 18) Vaccine, Recombinant) *Injectable*	10/16/09	Other - Ready for approval in females 10 through 25 years of age.	n/a	n/a	6/30/10	6/17/2010
125329/0	Bio Products Laboratory	**Gammaplex** (Immune Globulin Intravenous (Human), 5% Liquid) *Injectable*	9/17/09	Ready for approval for use in adults before pediatric studies are complete.	9-25-13	Delays involving study participants, sites, and/or management	~~12/31/12~~ 12/31/14	9/29/2014
125347/0	GlaxoSmithKline Biologicals	**Hiberix** (Haemophilus b Conjugate Vaccine (Tetanus Toxoid Conjugate)) *Injectable*	8/19/09	Other - Ready for approval in children 15 months – 4 years of age and the study in patients 6 weeks – 14 months has not been completed.	n/a	n/a	12/31/13	1/7/2014
125280/0	Intercell AG	**Ixiaro** (Japanese Encephalitis Virus Vaccine Inactivated) *Injectable*	3/30/09	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	9/30/12	7/18/12
					n/a	n/a	9/30/12	7/18/12
125248/0	ZymoGenetics, Inc.	**Recothrom** (Thrombin topical (Recombinant)) *Solution*	1/17/08	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	12/31/10	7/13/10

BLA/NDA Number	Sponsor	Product	Deferral Granted[6]	Reason for Deferral[7]	Deferral Extension Granted	Reason for Deferral Extension[8]	Study Due[9]	Study Complete[10]
070012	Fresenius Kabi Deutschland GmbH	**Voluven** (6% Hydroxyethyl Starch 130/0.4 in 0.9% Sodium Chloride Injection) *Injectable*	12/27/07	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	12/27/10	5/10/11
125254/0	CSL Limited	**Afluria** (Influenza Virus Vaccine) *Injectable*	9/28/07	Ready for approval for use in adults before pediatric studies are complete.	n/a	n/a	6/30/10	6/30/10
					n/a	n/a	6/30/10	6/30/10
					n/a	n/a	6/30/10	6/30/10

[1] This report is prepared annually in response to Sections 505B(f)(6)(D)(i), 505B(f)(6)(D)(ii), and 505B(f)(6)(I) of the Food, Drug and Cosmetic Act ("FD&C Act"), as amended by the Food and Drug Administration Safety and Innovation Act ("FDASIA").

[2] Requests for deferrals were identified in NDAs and BLAs submitted to CBER. This number includes deferral requests contained in applications, some of which the Agency has not yet approved, or for which the Agency has determined that a deferral is not appropriate. This number does not include deferral requests for products exempt from PREA (e.g., orphan drugs).

[3] Granted deferrals were identified in approval letters.

[4] FDA began reporting deferral information in response to the Food and Drug Administration Amendments Act of 2007 (FDAAA), which was enacted 09/27/07.

[5] Section 505B(a)(3)(B) of the FD&C Act outlines the process for deferral extensions. FDA began reporting deferral extension information in response to FDASIA, which was enacted 07/09/12.

[6] The "Deferral Granted" date is the date the application is approved, since deferrals are granted within approval letters.

[7] Section 505B(a)(3)(A) of the FD&C Act lists the appropriate reasons for granting deferrals.

[8] Section 505B(a)(3)(B) of the FD&C Act discusses deferral extensions. Additional information about the reasons deferral extension were granted is included in this table:

Reasons for deferral extensions	**Examples of the types of scenarios associated with each reason**
Delays due to issues with the study drug and/or comparator drug	• Delays developing an age-appropriate formulation • Product quality and stability issues • Comparator drug shortage
Delays involving study participants, sites, and/or management	• Difficulty recruiting study participants • High rate of site personnel turnover • Additional time needed to address expected issues in study conduct
Delays due to safety and/or pharmacokinetic issues	• Additional safety data are required • Must review new pharmacokinetic data before proceeding with the study • Study proceeding with a more cautious approach due to new potential safety signals
Delays due to continuing interaction between the applicant and the FDA	• The FDA placed the study on clinical hold • The FDA requested a change in the protocol • The applicant and the FDA are negotiating a different study to fulfill the PREA requirement

Additional time required to prepare the study report and/or submission	• Delays collecting and compiling the study data • Additional time required to analyze the study data • Additional time required to prepare a supplemental NDA with appropriate pediatric labeling

[9] Each study due date represents one pediatric postmarketing study requirement (PMR). Where deferral extensions have been granted, the original study due date is struck through, and the new study due date is listed below the original date.

[10] "Study Complete" dates indicate when the FDA received studies. If upon review of a study, the FDA determines that a PREA PMR requirement was not met, this date will be removed. If the FDA releases a PMR, it is deleted from this table unless the PMR is superseded by another PMR (the Study Complete date may be revised in this circumstance). Therefore, the total number of deferrals granted may be more than the number of rows in the table. Some deferred pediatric studies have been released/replaced with new studies and revised timelines. These are reflected in this table along with the supplement # that corresponds to the new study. These new studies may have design changes or, in the case of seasonal influenza, may replace the trivalent formulation with quadrivalent.