

SECTION 3: NUMBERS AND USES OF ANIMALS FOR THE CREATION AND MAINTENANCE OF GENETICALLY ALTERED ANIMALS (GAA) - TRENDS

Includes only the uses of animals for the creation and maintenance of genetically altered animals.

FILTERS

Reporting year: All

Country: All

EC ID: All

File name: All

EU Submission: Yes

ID 1: All

ID 2: All

ID 3: All

Species: All

Other species: All

Species grouping level 1: All

Species grouping level 2: All

Mammals: All

Non-human primates: All

Reuse: All

Place of birth: All

NHP Place of birth: All

NHP Colony type: Self-sustaining colony: All

NHP generation: All

Genetic status: All

Purpose: All

Purpose category level 1: All

Purpose category level 2: All

Purpose category level 3: All

Purpose category level 4: All

Type of legislation: All

Other legislation: All

Severity: All

Custom severity: All

Method of tissue sampling: All

Severity of genotyping: All

NUMBERS OF ANIMALS USED FOR THE CREATION OF NEW GENETICALLY ALTERED ANIMAL LINES FOR THE FIRST TIME

Numbers of animals by species

Species	↑↓	2015	↑↓	2016	↑↓	2017	↑↓	2018	↑↓	2019	↑↓	2020	↑↓	2021	↑↓	2022	↑↓
Mice		4780		1994		3686		3281		1679		2983		7503		2855	
Rats		60		2		0		0		51		0		0		0	
Pigs		4		0		2		0		0		0		0		0	
Zebra fish		0		0		0		649		722		808		554		904	
Total		4844		1996		3688		3930		2452		3791		8057		3759	

USES OF ANIMALS FOR THE CREATION OF NEW GENETICALLY ALTERED ANIMAL LINES

Uses of animals by species

Species	↑↓	2015	↑↓	2016	↑↓	2017	↑↓	2018	↑↓	2019	↑↓	2020	↑↓	2021	↑↓	2022	↑↓
Mice		4780		1994		3686		3281		1679		3022		7524		2855	
Rats		60		2		0		0		51		0		0		0	
Pigs		4		0		2		0		0		0		0		0	
Zebra fish		0		0		0		649		722		808		554		904	
Total		4844		1996		3688		3930		2452		3830		8078		3759	

Uses of animals by severity

Severity	↑↓	2015 ↑↓	2016 ↑↓	2017 ↑↓	2018 ↑↓	2019 ↑↓	2020 ↑↓	2021 ↑↓	2022 ↑↓
Non-recovery		193	78	79	109	37	0	59	0
Mild [up to and including]		4122	1885	3143	3787	2088	3640	7341	3747
Moderate		512	33	466	31	327	190	678	12
Severe		17	0	0	3	0	0	0	0
Total		4844	1996	3688	3930	2452	3830	8078	3759

Uses of animals by genetic status

Genetic status	↑↓	2015 ↑↓	2016 ↑↓	2017 ↑↓	2018 ↑↓	2019 ↑↓	2020 ↑↓	2021 ↑↓	2022 ↑↓
Not genetically altered		3729	1741	2803	1947	1410	2746	6523	2756
Genetically altered without a harmful phenotype		759	200	679	1982	1042	1043	1425	1003
Genetically altered with a harmful phenotype		356	55	206	1	0	41	130	0
Total		4844	1996	3688	3930	2452	3830	8078	3759

Reuse of animals

Reuse ↑↓	2015 ↑↓	2016 ↑↓	2017 ↑↓	2018 ↑↓	2019 ↑↓	2020 ↑↓	2021 ↑↓	2022 ↑↓
No	4844	1996	3688	3930	2452	3791	8057	3759
Yes	0	0	0	0	0	39	21	0
Total	4844	1996	3688	3930	2452	3830	8078	3759

BASIC RESEARCH USES OF ANIMALS FOR THE CREATION OF NEW GENETICALLY ALTERED ANIMAL LINES

Basic research uses

Purpose	↑↓	2015 ↑↓	2016 ↑↓	2017 ↑↓	2018 ↑↓	2019 ↑↓	2020 ↑↓	2021 ↑↓	2022 ↑↓
Oncology		217	0	258	1	0	35	0	12
Cardiovascular Blood and Lymphatic System		67	0	2	0	131	571	214	422
Nervous System		4108	1779	92	415	143	360	853	166
Gastrointestinal System including Liver		60	0	0	6	50	150	24	17
Musculoskeletal System		122	0	818	0	37	0	0	0
Immune System		99	0	0	0	0	0	61	92
Urogenital/Reproductive System		6	0	0	119	0	0	0	0
Endocrine System/Metabolism		52	109	273	150	184	148	272	0
Developmental Biology		0	0	0	0	0	0	0	2752
Multisystemic		0	0	0	358	174	2542	6654	298
Ethology / Animal Behaviour /Animal Biology		18	91	91	0	0	0	0	0
Other basic research		0	0	1985	2791	1733	0	0	0
Total		4749	1979	3519	3840	2452	3806	8078	3759

Basic research uses by severity

Severity ↑↓	2015 ↑↓	2016 ↑↓	2017 ↑↓	2018 ↑↓	2019 ↑↓	2020 ↑↓	2021 ↑↓	2022 ↑↓
Non-recovery	193	78	79	109	37	0	59	0
Mild [up to and including]	4113	1868	3128	3727	2088	3637	7341	3747
Moderate	434	33	312	1	327	169	678	12
Severe	9	0	0	3	0	0	0	0
Total	4749	1979	3519	3840	2452	3806	8078	3759

TRANSLATIONAL AND APPLIED RESEARCH USES OF ANIMALS FOR THE CREATION OF NEW GENETICALLY ALTERED ANIMAL LINES

Translational and applied research uses

Purpose	↑↓	2015 ↑↓	2016 ↑↓	2017 ↑↓	2018 ↑↓	2020 ↑↓
Human Cancer		8	0	0	0	0
Human Nervous and Mental Disorders		9	0	169	0	12
Human Musculoskeletal Disorders		0	0	0	60	0
Human Immune Disorders		78	0	0	0	0
Human Urogenital/Reproductive Disorders		0	0	0	0	12
Human Sensory Organ Disorders (skin, eyes and ears)		0	2	0	0	0
Human Endocrine/Metabolism Disorders		0	15	0	30	0
Total		95	17	169	90	24

Translational and applied research uses by severity

Severity	↑↓	2015 ↑↓	2016 ↑↓	2017 ↑↓	2018 ↑↓	2020 ↑↓
Mild [up to and including]		9	17	15	60	3
Moderate		78	0	154	30	21
Severe		8	0	0	0	0
Total		95	17	169	90	24

Proportions of translational and applied research uses by severity

Severity	↑↓	2015 ↑↓	2016 ↑↓	2017 ↑↓	2018 ↑↓	2020 ↑↓
Mild [up to and including]		9.47%	100%	8.88%	66.67%	12.5%
Moderate		82.11%	0%	91.12%	33.33%	87.5%
Severe		8.42%	0%	0%	0%	0%
Total		100%	100%	100%	100%	100%

NUMBERS OF ANIMALS USED FOR THE MAINTENANCE OF GENETICALLY ALTERED ANIMAL LINES FOR THE FIRST TIME

Numbers of animals by species

Species	↑↓	2015	↑↓	2017	↑↓	2018	↑↓	2019	↑↓	2020	↑↓	2021	↑↓	2022	↑↓
Mice		3		29		179		6043		7793		1		688	
Total		3		29		179		6043		7793		1		688	

USES OF ANIMALS FOR THE MAINTENANCE OF GENETICALLY ALTERED ANIMAL LINES

Uses of animals by species

Species	↑↓	2015	↑↓	2017	↑↓	2018	↑↓	2019	↑↓	2020	↑↓	2021	↑↓	2022	↑↓
Mice		3		29		179		6043		7793		1		688	
Total		3		29		179		6043		7793		1		688	

Uses of animals by severity

Severity	↑↓	2015 ↑↓	2017 ↑↓	2018 ↑↓	2019 ↑↓	2020 ↑↓	2021 ↑↓	2022 ↑↓
Non-recovery		0	0	0	178	395	0	0
Mild [up to and including]		3	29	2	5855	5873	0	688
Moderate		0	0	173	4	1517	1	0
Severe		0	0	4	6	8	0	0
Total		3	29	179	6043	7793	1	688

Uses of animals by genetic status

Genetic status	↑↓	2015 ↑↓	2017 ↑↓	2018 ↑↓	2019 ↑↓	2020 ↑↓	2021 ↑↓	2022 ↑↓
Not genetically altered		0	0	0	6039	7753	0	688
Genetically altered without a harmful phenotype		0	0	0	0	40	0	0
Genetically altered with a harmful phenotype		3	29	179	4	0	1	0
Total		3	29	179	6043	7793	1	688

Reuse of animals

Genetic status	↑↓	2015 ↑↓	2017 ↑↓	2018 ↑↓	2019 ↑↓	2020 ↑↓	2021 ↑↓	2022 ↑↓
No		3	29	179	6043	7793	1	688
Total		3	29	179	6043	7793	1	688

