

TABLE E-1 Effect of Glatiramer Acetate on Functional and Histological Results of Peripheral Nerve Regeneration After Crush Injury to Wild-Type Rat Sciatic Nerve: Three-Week Protocol*

	N	Mean	Standard Deviation	Glatiramer Acetate One-Dose Study Group	Glatiramer Acetate Two-Dose Study Group	Complete Freund's Adjuvant Control Group	Normal Saline Solution Control Group
Tibialis anterior muscle response to stimulation (control:injured limb ratio) (mN)							
Glatiramer acetate one-dose study group	9	0.05	0.13	—	p < 0.05	p < 0.05	p < 0.05
Glatiramer acetate two-dose study group	9	0.52	0.17	p < 0.05	—	NS	NS
Complete Freund's adjuvant control group	8	0.53	0.06	p < 0.05	NS	—	NS
Normal saline solution control group	8	0.51	0.19	p < 0.05	NS	NS	—
Tibialis anterior muscle weight (control:injured limb ratio) (mg)							
Glatiramer acetate one-dose study group	10	0.38	0.10	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	0.42	0.08	NS	—	NS	NS
Complete Freund's adjuvant control group	9	0.39	0.11	NS	NS	—	NS
Normal saline solution control group	8	0.42	0.07	NS	NS	NS	—
Footprint toe spread factor (at Day 21) (control:injured limb ratio¹⁶)							
Glatiramer acetate one-dose study group	9	-0.004	0.06	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	-0.083	0.12	NS	—	p < 0.01	NS
Complete Freund's adjuvant control group	9	0.044	0.09	NS	p < 0.01	—	NS
Normal saline solution control group	8	-0.019	0.08	NS	NS	NS	—
Sciatic nerve axon count proximal to site of injury (control:injured nerve ratio) (axons/μm^2)							
Glatiramer acetate one-dose study group	10	-0.14	0.31	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	-0.02	0.20	NS	—	NS	NS
Complete Freund's adjuvant control group	9	-0.07	0.10	NS	NS	—	NS

Normal saline solution control group	8	0.01	0.14	NS	NS	NS	—
Sciatic nerve axon count distal to site of injury (control:injured nerve ratio) (<i>axons/μm^2</i>)							
Glatiramer acetate one-dose study group	10	−0.07	0.3	—	NS	NS	p < 0.05
Glatiramer acetate two-dose study group	9	0.15	0.18	NS	—	NS	NS
Complete Freund's adjuvant control group	9	0.19	0.31	NS	NS	—	NS
Normal saline solution control group	8	0.29	0.17	p < 0.05	NS	NS	—

*In the one-dose glatiramer acetate group, a single dose was given immediately after the nerve injury. In the two-dose glatiramer acetate group, the first dose was given immediately after the nerve injury and the second dose was given after forty-eight hours. The wild-type rats were Harlan Sprague-Dawley rats. NS = not significant. The shaded areas represent significant results.

TABLE E-2 Effect of Glatiramer Acetate on Functional and Histological Results of Peripheral Nerve Regeneration After Crush Injury to Wild-Type Rat Sciatic Nerve: Six-Week Protocol*

	N	Mean	Standard Deviation	Glatiramer Acetate One-Dose Study Group	Glatiramer Acetate Two-Dose Study Group	Complete Freund's Adjuvant Control Group	Normal Saline Solution Control Group
Tibialis anterior muscle response to stimulation (control:injured limb ratio) (mN)							
Glatiramer acetate one-dose study group	8	0.37	0.24	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	0.24	0.52	NS	—	NS	NS
Complete Freund's adjuvant control group	10	0.03	0.55	NS	NS	—	NS
Normal saline solution control group	9	0.20	0.43	NS	NS	NS	—
Tibialis anterior muscle weight (control:injured limb ratio) (mg)							
Glatiramer acetate one-dose study group	9	0.22	0.15	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	0.23	0.18	NS	—	NS	NS
Complete Freund's adjuvant control group	10	0.24	0.13	NS	NS	—	NS
Normal saline solution control group	9	0.27	0.08	NS	NS	NS	—
Sciatic nerve axon count proximal to site of injury (control:injured nerve ratio) (axons/μm^2)							
Glatiramer acetate one-dose study group	9	-0.37	0.72	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	-0.17	0.17	NS	—	NS	NS
Complete Freund's adjuvant control group	10	-0.04	0.34	NS	NS	—	NS
Normal saline solution control group	9	-0.56	0.94	NS	NS	NS	—
Sciatic nerve axon count distal to site of injury (control:injured nerve ratio) (axons/μm^2)							
Glatiramer acetate one-dose study group	9	-0.46	0.50	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	-0.34	0.38	NS	—	NS	NS
Complete Freund's adjuvant control group	10	-0.19	0.38	NS	NS	—	NS
Normal saline solution control group	9	-1.01	2.21	NS	NS	NS	—

*In the one-dose glatiramer acetate group, a single dose was given immediately after the nerve injury. In the two-dose glatiramer acetate group, the first dose was given immediately after the nerve injury and the second dose was given after forty-eight hours. The wild-type rats were Harlan Sprague-Dawley rats. NS = not significant.

TABLE E-3 Effect of Glatiramer Acetate on Functional and Histological Results of Peripheral Nerve Regeneration After Crush Injury to Nude-Type Rat Sciatic Nerve: Three-Week Protocol*

	N	Mean	Standard Deviation	Glatiramer Acetate One-Dose Study Group	Glatiramer Acetate Two-Dose Study Group	Complete Freund's Adjuvant Control Group	Normal Saline Solution Control Group
Tibialis anterior muscle response to stimulation (control:injured limb ratio) (<i>mN</i>)							
Glatiramer acetate one-dose study group	9	0.52	0.23	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	0.44	0.13	NS	—	NS	NS
Complete Freund's adjuvant control group	8	0.42	0.23	NS	NS	—	NS
Normal saline solution control group	8	0.55	0.14	NS	NS	NS	—
Tibialis anterior muscle weight (control:injured limb ratio) (<i>mg</i>)							
Glatiramer acetate one-dose study group	9	0.36	0.07	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	0.35	0.09	NS	—	NS	NS
Complete Freund's adjuvant control group	8	0.35	0.12	NS	NS	—	NS
Normal saline solution control group	8	0.36	0.14	NS	NS	NS	—
Footprint toe spread factor (at Day 21) (control:injured limb ratio¹⁶)							
Glatiramer acetate one-dose study group	9	-0.06	0.07	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	-0.099	0.11	NS	—	NS	NS
Complete Freund's adjuvant control group	8	-0.070	0.11	NS	NS	—	NS
Normal saline solution control group	8	-0.068	0.08	NS	NS	NS	—
Sciatic nerve axon count proximal to site of injury (control:injured nerve ratio) (<i>axons/μm²</i>)							
Glatiramer acetate one-dose study group	9	-0.09	0.20	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	-0.02	0.17	NS	—	NS	NS
Complete Freund's adjuvant control group	8	-0.07	0.25	NS	NS	—	NS

Normal saline solution control group	8	0.03	0.33	NS	NS	NS	—
Sciatic nerve axon count distal to site of injury (control:injured nerve ratio) (<i>axons/μm^2</i>)							
Glatiramer acetate one-dose study group	9	0.11	0.31	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	0.09	0.36	NS	—	NS	NS
Complete Freund's adjuvant control group	8	0.16	0.15	NS	NS	—	NS
Normal saline solution control group	8	0.15	0.16	NS	NS	NS	—

*In the one-dose glatiramer acetate group, a single dose was given immediately after the nerve injury. In the two-dose glatiramer acetate group, the first dose was given immediately after the nerve injury and the second dose was given after forty-eight hours. The nude-type rats were NIHRNU-M rats, deficient of T-cell lymphocytes. NS = not significant.

TABLE E-4 Effect of Glatiramer Acetate on Functional and Histological Results of Peripheral Nerve Regeneration After Crush Injury to Nude-Type Rat Sciatic Nerve: Six-Week Protocol*

	N	Mean	Standard Deviation	Glatiramer Acetate One-Dose Study Group	Glatiramer Acetate Two-Dose Study Group	Complete Freund's Adjuvant Control Group	Normal Saline Solution Control Group
Tibialis anterior muscle response to stimulation (control:injured limb ratio) (mN)							
Glatiramer acetate one-dose study group	9	0.10	0.34	—	NS	NS	NS
Glatiramer acetate two-dose study group	9	-0.02	0.63	NS	—	NS	NS
Complete Freund's adjuvant control group	9	0.17	0.33	NS	NS	—	NS
Normal saline solution control group	9	0.08	0.34	NS	NS	NS	—
Tibialis anterior muscle weight (control:injured limb ratio) (mg)							
Glatiramer acetate one-dose study group	9	0.16	0.09	—	NS	NS	NS
Glatiramer acetate two-dose study group	10	0.12	0.11	NS	—	NS	NS
Complete Freund's adjuvant control group	9	0.17	0.16	NS	NS	—	NS
Normal saline solution control group	9	0.13	0.03	NS	NS	NS	—
Sciatic nerve axon count proximal to site of injury (control:injured nerve ratio) (axons/μm^2)							
Glatiramer acetate one-dose study group	9	-0.32	0.16	—	NS	NS	p < 0.05
Glatiramer acetate two-dose study group	10	-0.12	0.32	NS	—	NS	NS
Complete Freund's adjuvant control group	9	-0.01	0.25	NS	NS	—	NS
Normal saline solution control group	8	0.05	0.21	p < 0.05	NS	NS	—
Sciatic nerve axon count distal to site of injury (control:injured nerve ratio) (axons/μm^2)							
Glatiramer acetate one-dose study group	9	-0.43	0.31	—	NS	NS	NS
Glatiramer acetate two-dose study group	10	-0.27	0.46	NS	—	NS	NS
Complete Freund's adjuvant control group	9	-0.05	0.16	NS	NS	—	NS

Normal saline solution control group	8	-0.04	0.27	NS	NS	NS	—
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*In the one-dose glatiramer acetate group, a single dose was given immediately after the nerve injury. In the two-dose glatiramer acetate group, the first dose was given immediately after the nerve injury and the second dose was given after forty-eight hours. The nude-type rats were NIHRNU-M rats, deficient of T-cell lymphocytes. NS = not significant. The shaded areas represent significant results.