Supplemental Table 1 *Fredriksson et al*

Figure 1a – Latency period before seizure ONSET					
Genotype	**WT**	**PAI$^{-/-}$**	**Nsp$^{-/-}$**	**tPA$^{-/-}$**	**Nsp;tPA$^{-/-}$**
N=	24	16	15	14	10
Median time (min)	**40.0**	**39.0**	**35.0**	**47.0**	**54.0**
Statistical analysis	**Log-rank test**				
P value /χ^2 **WT vs.**		**0.22** / 1.5	**0.02** / 5.7	**0.04** / 4.0	**0.004** / 8.3
P value /χ^2 **Nsp; tPA$^{-/-}$ vs.**			**<0.001** / 12.4	0.47 / 0.5	

Figure 1b – Latency period before seizure GENERALIZATION					
Genotype	**WT**	**PAI$^{-/-}$**	**Nsp$^{-/-}$**	**tPA$^{-/-}$**	**Nsp;tPA$^{-/-}$**
N=	24	16	15	14	10
Median time (min)	**131**	**139**	**108**	**224**	**228**
Statistical analysis	**Log-rank test**				
P value /χ^2 **WT vs.**		**0.60** / 0.3	**0.007** / 7.2	**<0.001** / 26.6	**<0.001** / 22.6
P value /χ^2 **Nsp; tPA$^{-/-}$ vs.**			**<0.001** / 24.2	**0.49** / 0.5	

Figure 1c – SURVIVAL					
Genotype	**WT**	**PAI$^{-/-}$**	**Nsp$^{-/-}$**	**tPA$^{-/-}$**	**Nsp;tPA$^{-/-}$**
N=	24	16	15	14	10
Median time (min)	undefined	undefined	177	undefined	undefined
Survival proportion @ 240 min	**58%**	**56%**	**20%**	**100%**	**100%**
Statistical analysis	**Log-rank test**				
P value /χ^2 **WT vs.**		**0.85** / 0.03	**0.008** / 7.0	**0.007** / 7.3	**0.02** / 5.2
P value /χ^2 **Nsp; tPA$^{-/-}$ vs.**			**<0.001** / 14.1	1.0 / 0	

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Figure 2a – Evans blue extravasation IPSI lateral hemisphere

Genotype	WT – 2hrs		Nsp$^{-/-}$ – 2hrs		WT – 4hrs		tPA$^{-/-}$ – 4hrs	
Treatment	Sham	**KA**	Sham	**KA**	Sham	**KA**	Sham	**KA**
N=	11	10	10	11	10	10	9	7
Avg. EB (A620/g)	0.199	**0.229**	0.159	**0.317**	0.141	**0.442**	0.096	**0.154**
Statistical analysis	One-way ANOVA, Bonferroni's multiple comparisons test							
P value summary **Sham vs. KA**	ns		<0.01		<0.001		ns	

Figure 2b – Evans blue extravasation CONTRA lateral hemisphere

Genotype	WT – 2hrs		Nsp$^{-/-}$ – 2hrs		WT – 4hrs		tPA$^{-/-}$ – 4hrs	
Treatment	Sham	**KA**	Sham	**KA**	Sham	**KA**	Sham	**KA**
N=	11	10	10	11	10	10	9	7
Avg. EB (A620/g)	0.084	**0.087**	0.096	**0.121**	0.075	**0.215**	0.052	**0.104**
Statistical analysis	One-way ANOVA, Bonferroni's multiple comparisons test							
P value summary **Sham vs. KA**	ns		ns		<0.001		ns	
P value summary **WT4h KA vs.**	<0.001	<0.001	<0.001	<0.01	<0.001		<0.001	<0.01
P value summary **sham vs. all other shams**	ns		ns		ns		ns	

Baseline EB

Genotype	WT	Nsp$^{-/-}$	tPA$^{-/-}$
N=	10	10	10
Avg. EB (A620/g)	0.086	0.087	0.086
Statistical analysis	One-way ANOVA, Bonferroni's multiple comparisons test		
	WT vs. Nsp$^{-/-}$	*WT vs. tPA$^{-/-}$*	*tPA$^{-/-}$ vs. Nsp$^{-/-}$*
P value summary	ns	ns	ns

Figure 4a – Latency to seizure ONSET in imatinib treated mice

Genotype	WT		Nsp$^{-/-}$		tPA$^{-/-}$	
Treatment	vehicle	**imatinib**	vehicle	**imatinib**	vehicle	**imatinib**
N=	20	27	14	14	14	10
Median time (min)	46	**72**	28	**40**	43	**41**
Statistical analysis	Log-rank test					
P value / χ^2 **Vehicle vs. imatinib**	<0.001 / 15.0		0.02 / 5.5		0.88 / 0.02	

Figure 4b – Latency to seizure GENERALIZATION in imatinib treated mice

Genotype	WT		Nsp$^{-/-}$		tPA$^{-/-}$	
Treatment	vehicle	**imatinib**	vehicle	**imatinib**	vehicle	**imatinib**
N=	20	27	14	14	14	10
Median time (min)	142	**163**	100	**129**	210	**212**
Statistical analysis	Log-rank test					
P value / χ^2 **Vehicle vs. imatinib**	0.05 / 3.8		0.03 / 5.0		0.98 / 0	

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Figure 6c – Latency to seizure ONSET and GENERALIZATION in PDGFRα fl/fl mice

	ONSET		GENERALIZATION	
Genotype	Cre(-);Rα fl/fl	**Cre(+);Rα fl/fl**	Cre(-);Rα fl/fl	**Cre(+);Rα fl/fl**
N=	10	10	10	10
Median time (min)	25	**29**	66	**97**
Statistical analysis	Log-rank test			
P value / χ^2 Cre(-) vs. Cre(+)	**0.89** / 0.02		**0.02** / 5.5	

Figure 6d – Latency to seizure ONSET and GENERALIZATION in PDGFRα wt mice

	ONSET		GENERALIZATION	
Genotype	Cre(-);Rα wt	**Cre(+);Rα wt**	Cre(-);Rα wt	**Cre(+);Rα wt**
N=	6	5	6	5
Median time (min)	**39**	**36**	**122**	**133**
Statistical analysis	Log-rank test			
P value / χ^2 Cre(-) vs. Cre(+)	**0.44** / 0.6		**0.80** / 0.1	

Figure 7 – Latency to ONSET and GENERALIZATION in mannitol treated tPA-/- mice

	b) EB extravasation		c) ONSET		d) GENERALIZATION	
Genotype	tPA$^{-/-}$					
Treatment	Saline	**Mannitol**	Saline	**Mannitol**	Saline	**Mannitol**
N=	4	**6**	7	8	7	8
b) Avg EB (A620/g) c,d) Median time (min)	0.126	**0.251**	41	**36**	Undefined	**86**
Statistical analysis	Student's unpaired t-test		Log-rank test			
P value / χ^2 Saline vs. mannitol	**0.02**		**0.02** / 5.1		**<0.001** / 12.1	

Figure 8a,b – Latency to electrical activity in vivo and in vitro

	a) In vivo			b) In vitro		
Genotype	**WT**	**Nsp$^{-/-}$**	**tPA$^{-/-}$**	**WT**	**Nsp$^{-/-}$**	**tPA$^{-/-}$**
N=	7	5	5	14	11	8
Median time (min)	65	**39**	100	14.6	**16.5**	14.1
Statistical analysis	Log-rank test					
P value / χ^2 WT vs.		**0.03** / 4.9	**0.04** / 4.0		**0.22** / 1.5	**0.02** / 5.3