

**Experiment Number:** 89029-03  
**Test Type:** 150-DAY  
**Route:** MAGNETIC FIELDS  
**Species/Strain:** Mouse/PIM

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH  
AVERAGE SEVERITY GRADES[b]**  
**Test Compound:** Magnetic fields (EMF)  
**CAS Number:** MAGNETIC

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 19:44:49  
**First Dose M/F:** NA / NA  
**Lab:** IIT

<b>C Number:</b>	C89029B
<b>Lock Date:</b>	01/05/1995
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	NONE

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 Lab: IIT

PIM Mouse MALE	10 GAUSS	10 GAUSSINTER	2 GAUSS	0.02 GAUSS	SHAM CONTROL	10 GAUSS
<b>Disposition Summary</b>						
Animals Initially In Study	19	19	19	19	19	11
Early Deaths						
Moribund Sacrifice	3	10	3	4	10	3
Natural Death		1	1	2		
Survivors						
Moribund Sacrifice						1
Terminal Sacrifice	16	8	15	13	9	7
Animals Examined Microscopically	19	19	19	19	19	11
<b>ALIMENTARY SYSTEM</b>						
Liver	(19)	(19)	(19)	(19)	(19)	(11)
Congestion		1 [1.0]				
Fatty Change						1 [1.0]
Inflammation, Chronic	1 [2.0]	2 [1.0]	5 [1.6]	8 [1.1]	3 [1.3]	2 [1.0]
Necrosis				1 [3.0]		
<b>CARDIOVASCULAR SYSTEM</b>						
None						
<b>ENDOCRINE SYSTEM</b>						
None						
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
None						
<b>HEMATOPOIETIC SYSTEM</b>						
Lymph Node, Mandibular Hemorrhage	(19)	(19)	(19)	(18)	(19)	(11)

a - Number of animals examined microscopically at site and number of animals with lesion  
 b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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First Dose M/F: NA / NA

Lab: IIT

PIM Mouse MALE	10 GAUSS	10 GAUSSINTER	2 GAUSS	0.02 GAUSS	SHAM CONTROL	10 GAUSS
Hyperplasia	7 [2.1]	3 [3.0]	10 [2.4]	5 [2.2]	3 [3.0]	4 [2.0]
Infiltration Cellular, Plasma Cell					1 [4.0]	
Lymph Node, Mesenteric	(13)	(16)	(15)	(13)	(18)	(11)
Hemorrhage		1 [2.0]				
Hyperplasia	3 [1.7]	1 [1.0]			1 [1.0]	2 [2.0]
Spleen	(19)	(19)	(19)	(19)	(19)	(11)
Hematopoietic Cell Proliferation					2 [2.0]	1 [1.0]
Lymph Follic, Hyperplasia	1 [2.0]		1 [2.0]	1 [2.0]	2 [2.0]	
Thymus	(19)	(19)	(18)	(18)	(19)	(11)
Atrophy	1 [4.0]					
Hyperplasia	2 [2.0]		2 [1.5]		1 [2.0]	
<b>INTEGUMENTARY SYSTEM</b>						
None						
<b>MUSCULOSKELETAL SYSTEM</b>						
None						
<b>NERVOUS SYSTEM</b>						
None						
<b>RESPIRATORY SYSTEM</b>						
Lung	(19)	(19)	(19)	(19)	(19)	(11)
Alveolar Epith, Hyperplasia	1 [3.0]				1 [1.0]	1 [2.0]
Congestion						
Hemorrhage	2 [1.0]	2 [3.0]	2 [2.0]	1 [3.0]	5 [1.6]	2 [3.0]
Interstitial, Inflammation, Chronic	1 [2.0]			1 [2.0]	1 [1.0]	
Perivascular, Inflammation, Chronic	5 [1.8]		5 [2.4]	2 [1.5]	1 [1.0]	1 [3.0]
Serosa, Inflammation, Chronic	1 [3.0]			1 [2.0]		
<b>SPECIAL SENSES SYSTEM</b>						
None						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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First Dose M/F: NA / NA

Lab: IIT

PIM Mouse MALE	10 GAUSS	10 GAUSSINTER	2 GAUSS	0.02 GAUSS	SHAM CONTROL	10 GAUSS
URINARY SYSTEM						
Kidney	(19)	(19)	(19)	(19)	(19)	(11)
Hydronephrosis	1 [2.0]	2 [3.0]	1 [1.0]	1 [2.0]	1 [2.0]	
Infarct						1 [2.0]
Inflammation					1 [2.0]	
Inflammation, Chronic	7 [1.6]	6 [1.5]	8 [2.0]	8 [1.6]	4 [1.5]	4 [1.8]

a - Number of animals examined microscopically at site and number of animals with lesion

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 Lab: IIT

PIM Mouse MALE	10 GAUSS	2 GAUSS	0.02 GAUSS	SHAM	CONTROL
<b>Disposition Summary</b>					
Animals Initially In Study	11	11	11		11
Early Deaths					
Moribund Sacrifice	4	6	5		1
Natural Death			1		1
Survivors					
Moribund Sacrifice	1				
Terminal Sacrifice	6	5	5		9
Animals Examined Microscopically	11	11	11		10
<b>ALIMENTARY SYSTEM</b>					
Liver	(11)	(11)	(11)		(10)
Congestion					
Fatty Change					
Inflammation, Chronic	1 [2.0]		1 [1.0]		3 [1.0]
Necrosis					
<b>CARDIOVASCULAR SYSTEM</b>					
None					
<b>ENDOCRINE SYSTEM</b>					
None					
<b>GENERAL BODY SYSTEM</b>					
None					
<b>GENITAL SYSTEM</b>					
None					
<b>HEMATOPOIETIC SYSTEM</b>					
Lymph Node, Mandibular	(10)	(11)	(11)		(10)
Hemorrhage		1 [2.0]			

a - Number of animals examined microscopically at site and number of animals with lesion  
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First Dose M/F: NA / NA

Lab: IIT

PIM Mouse MALE	10 GAUSS	2 GAUSS	0.02 GAUSS	SHAM	CONTROL
Hyperplasia	3 [1.7]	2 [2.0]			2 [3.0]
Infiltration Cellular, Plasma Cell					
Lymph Node, Mesenteric	(10)	(10)	(9)		(9)
Hemorrhage					
Hyperplasia	2 [1.5]				1 [2.0]
Spleen	(11)	(11)	(11)		(10)
Hematopoietic Cell Proliferation	1 [1.0]				
Lymph Follic, Hyperplasia					1 [2.0]
Thymus	(11)	(11)	(11)		(10)
Atrophy					
Hyperplasia					
INTEGUMENTARY SYSTEM					
None					
MUSCULOSKELETAL SYSTEM					
None					
NERVOUS SYSTEM					
None					
RESPIRATORY SYSTEM					
Lung	(11)	(11)	(11)		(10)
Alveolar Epith, Hyperplasia					
Congestion					1 [2.0]
Hemorrhage	4 [2.0]	4 [1.8]	3 [2.0]		2 [2.0]
Interstitial, Inflammation, Chronic					1 [2.0]
Perivascular, Inflammation, Chronic	2 [1.0]		2 [2.0]		4 [2.0]
Serosa, Inflammation, Chronic					
SPECIAL SENSES SYSTEM					
None					

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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First Dose M/F: NA / NA

Lab: IIT

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PIM Mouse MALE	10 GAUSS	2 GAUSS	0.02 GAUSS	SHAM	CONTROL
URINARY SYSTEM					
Kidney	(11)	(11)	(11)		(10)
Hydronephrosis	2 [1.5]		2 [1.5]		
Infarct					
Inflammation					
Inflammation, Chronic	2 [2.0]	3 [1.7]	2 [1.0]		5 [1.8]

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\*\*\*END OF MALE DATA\*\*\*

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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 First Dose M/F: NA / NA  
 Lab: IIT

PIM Mouse FEMALE	10 GAUSS	10 GAUSSINTER	2 GAUSS	0.02 GAUSS	SHAM CONTROL	10 GAUSS
<b>Disposition Summary</b>						
Animals Initially In Study	19	19	19	19	19	11
Early Deaths						
Moribund Sacrifice	6	5	4	6	2	1
Natural Death	4	3	2	2	5	2
Survivors						
Terminal Sacrifice	9	11	13	11	12	8
Other						
Animals Examined Microscopically	19	19	19	19	19	11
<b>ALIMENTARY SYSTEM</b>						
Liver	(19)	(19)	(19)	(19)	(19)	(11)
Fatty Change						
Hematopoietic Cell Proliferation				1 [2.0]		
Inflammation, Chronic	6 [1.0]	6 [1.3]	6 [1.5]	8 [1.8]	4 [1.5]	
Necrosis			1 [1.0]	1 [1.0]	1 [1.0]	
<b>CARDIOVASCULAR SYSTEM</b>						
None						
<b>ENDOCRINE SYSTEM</b>						
Thyroid Gland	(0)	(0)	(0)	(1)	(0)	(0)
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
None						
<b>HEMATOPOIETIC SYSTEM</b>						
Lymph Node, Mandibular	(19)	(19)	(19)	(18)	(19)	(10)
Hyperplasia	7 [2.4]	7 [2.4]	8 [3.0]	6 [2.7]	7 [3.1]	5 [2.4]

a - Number of animals examined microscopically at site and number of animals with lesion  
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Lab: IIT

PIM Mouse FEMALE	10 GAUSS	10 GAUSSINTER	2 GAUSS	0.02 GAUSS	SHAM CONTROL	10 GAUSS
Lymph Node, Mesenteric	(19)	(18)	(17)	(17)	(17)	(9)
Hyperplasia	3 [1.7]	3 [1.3]	2 [1.5]	4 [1.8]	4 [2.5]	1 [2.0]
Spleen	(19)	(19)	(19)	(19)	(18)	(11)
Atrophy				1 [3.0]		
Hematopoietic Cell Proliferation	1 [1.0]	1 [2.0]		3 [1.7]	3 [1.3]	
Infiltration Cellular, Mast Cell					1 [3.0]	
Lymph Follic, Hyperplasia	1 [2.0]			3 [2.3]	1 [2.0]	1 [2.0]
Thymus	(18)	(19)	(19)	(17)	(18)	(11)
Atrophy			1 [3.0]			
Hyperplasia	1 [2.0]		1 [1.0]		2 [2.0]	1 [3.0]
INTEGUMENTARY SYSTEM						
None						
MUSCULOSKELETAL SYSTEM						
None						
NERVOUS SYSTEM						
None						
RESPIRATORY SYSTEM						
Lung	(19)	(19)	(19)	(19)	(18)	(10)
Hemorrhage	6 [2.2]	1 [3.0]	2 [2.5]	2 [2.5]	3 [2.0]	2 [2.0]
Interstitial, Inflammation, Chronic					2 [1.5]	
Perivascular, Inflammation, Chronic	7 [2.7]	10 [2.6]	9 [1.7]	9 [2.2]	8 [2.1]	5 [2.4]
Serosa, Inflammation, Chronic				1 [2.0]		
Thrombosis						
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney	(19)	(19)	(19)	(19)	(19)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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PIM Mouse FEMALE	10 GAUSS	10 GAUSSINTER	2 GAUSS	0.02 GAUSS	SHAM CONTROL	10 GAUSS
Kidney	(19)	(19)	(19)	(19)	(19)	(10)
Amyloid Deposition						
Hydronephrosis				1 [4.0]	1 [2.0]	
Infarct					1 [2.0]	
Inflammation, Chronic	6 [1.8]	7 [1.4]	9 [1.9]	8 [2.0]	10 [2.2]	3 [2.3]

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PIM Mouse FEMALE	10 GAUSS	2 GAUSS	0.02 GAUSS	SHAM	CONTROL
<b>Disposition Summary</b>					
Animals Initially In Study	11	11	11		11
Early Deaths					
Moribund Sacrifice	4		3		1
Natural Death		2	1		2
Survivors					
Terminal Sacrifice	7	8	7		8
Other		1			
Animals Examined Microscopically	11	10	11		11
<b>ALIMENTARY SYSTEM</b>					
Liver	(11)	(10)	(11)		(11)
Fatty Change	1 [3.0]				
Hematopoietic Cell Proliferation					
Inflammation, Chronic	2 [1.0]	1 [3.0]	2 [1.0]		2 [1.0]
Necrosis	1 [2.0]				
<b>CARDIOVASCULAR SYSTEM</b>					
None					
<b>ENDOCRINE SYSTEM</b>					
Thyroid Gland	(0)	(0)	(0)		(0)
<b>GENERAL BODY SYSTEM</b>					
None					
<b>GENITAL SYSTEM</b>					
None					
<b>HEMATOPOIETIC SYSTEM</b>					
Lymph Node, Mandibular	(11)	(10)	(11)		(11)
Hyperplasia	3 [1.3]	2 [3.0]	6 [3.2]		5 [2.6]

a - Number of animals examined microscopically at site and number of animals with lesion  
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PIM Mouse FEMALE	10 GAUSS	2 GAUSS	0.02 GAUSS	SHAM	CONTROL
Lymph Node, Mesenteric	(10)	(9)	(9)		(9)
Hyperplasia	2 [1.0]	3 [1.0]			3 [2.0]
Spleen	(11)	(10)	(11)		(11)
Atrophy					1 [3.0]
Hematopoietic Cell Proliferation		1 [2.0]	2 [1.0]		1 [1.0]
Infiltration Cellular, Mast Cell					
Lymph Follic, Hyperplasia			1 [2.0]		3 [2.7]
Thymus	(11)	(10)	(11)		(11)
Atrophy					
Hyperplasia					
<b>INTEGUMENTARY SYSTEM</b>					
None					
<b>MUSCULOSKELETAL SYSTEM</b>					
None					
<b>NERVOUS SYSTEM</b>					
None					
<b>RESPIRATORY SYSTEM</b>					
Lung	(11)	(10)	(11)		(11)
Hemorrhage	2 [2.0]	2 [1.5]	4 [2.3]		2 [1.0]
Interstitial, Inflammation, Chronic					
Perivascular, Inflammation, Chronic	6 [2.3]	6 [1.8]	5 [2.0]		5 [2.0]
Serosa, Inflammation, Chronic					
Thrombosis			1 [2.0]		
<b>SPECIAL SENSES SYSTEM</b>					
None					
<b>URINARY SYSTEM</b>					
Kidney	(11)	(10)	(11)		(11)

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PIM Mouse FEMALE	10 GAUSS	2 GAUSS	0.02 GAUSS	SHAM	CONTROL
Kidney	(11)	(10)	(11)		(11)
Amyloid Deposition	1 [3.0]				
Hydronephrosis			1 [3.0]		
Infarct					
Inflammation, Chronic	3 [1.7]	4 [1.8]	6 [2.2]		5 [2.2]

\*\* END OF REPORT \*\*

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)