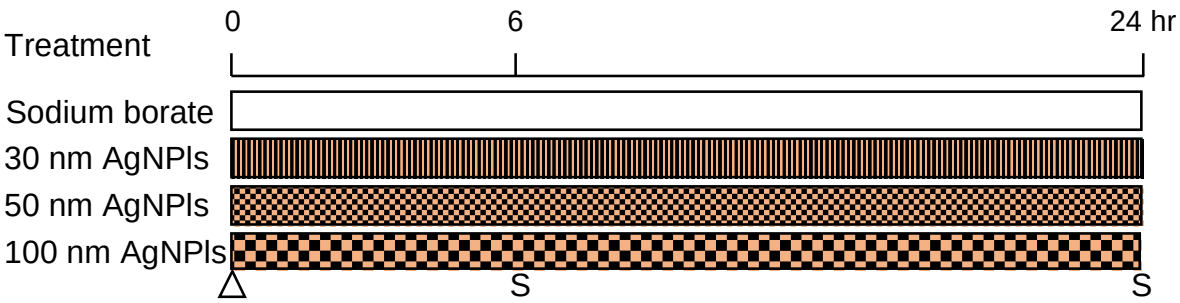
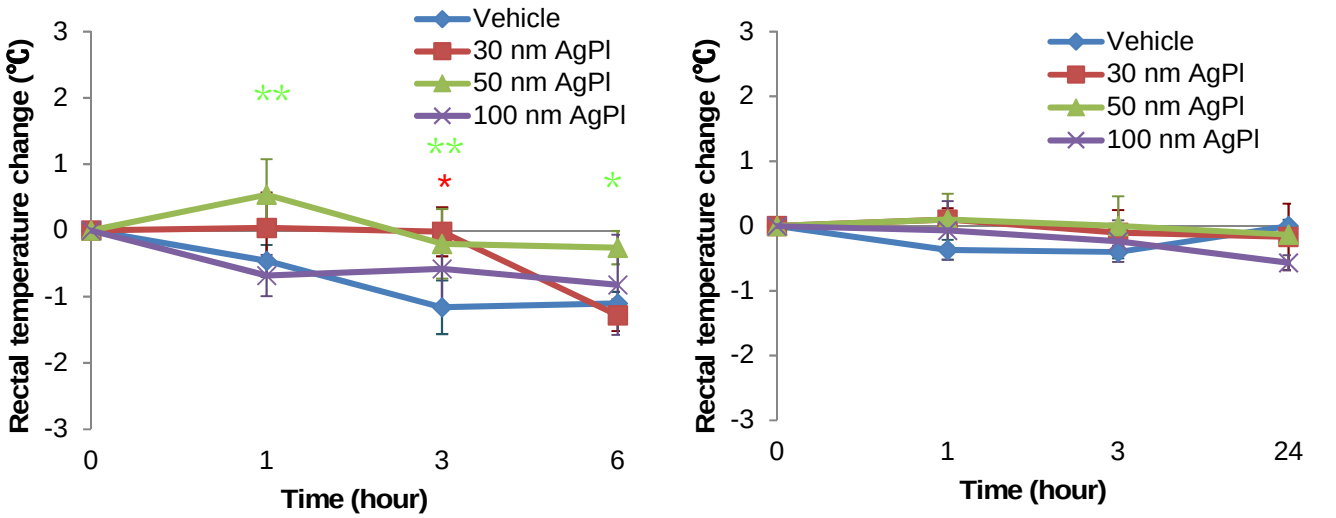


Animal ; 6 week old, BALB/c, female
△ Sodium borate (5 mM, i.p., 0.3 ml/mouse)
Silver nanoplates (30 nm AgNPl, i.p., 0.2 mg/mouse)
Silver nanoplates (50 nm AgNP, i.p., 0.2 mg/mouse)
Silver nanoplates (100 nm AgNPl, i.p., 0.2 mg/mouse)
S Sacrifice (n=5 at 6 hr and n=3 at 24 hr)

Figure 1. ナノ銀プレートのマウス腹腔内投与

【実験 A9】



**, * : p<0.01, 0.05 vs. Vehicle

Figure 2. 直腸温の変化 (6 時間試験, 24 時間試験)

【実験 A9】

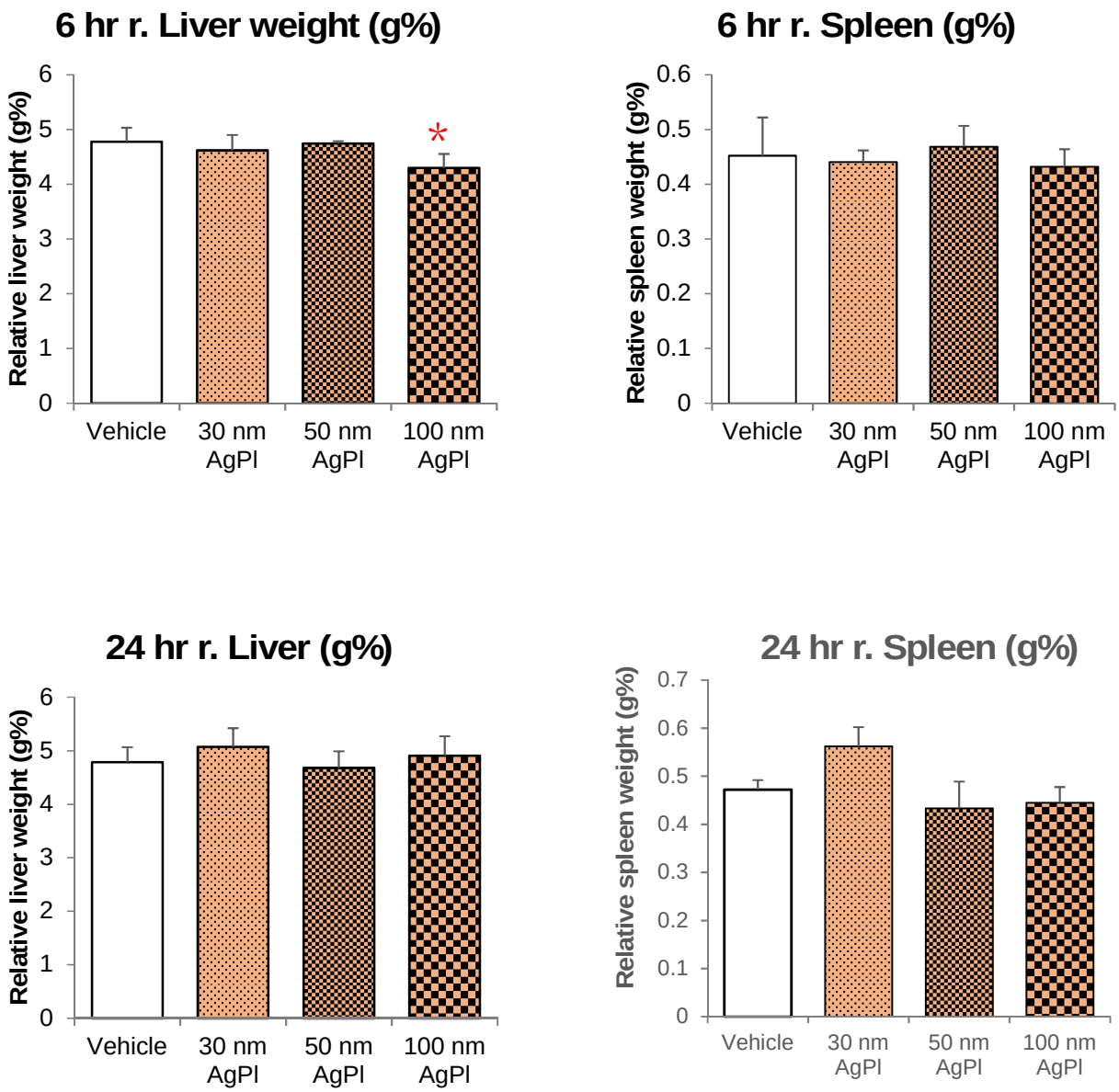


Figure 3. 相対肝重量及び相対脾重量 (投与 6 時間後及び 24 時間後)

【実験 A9】

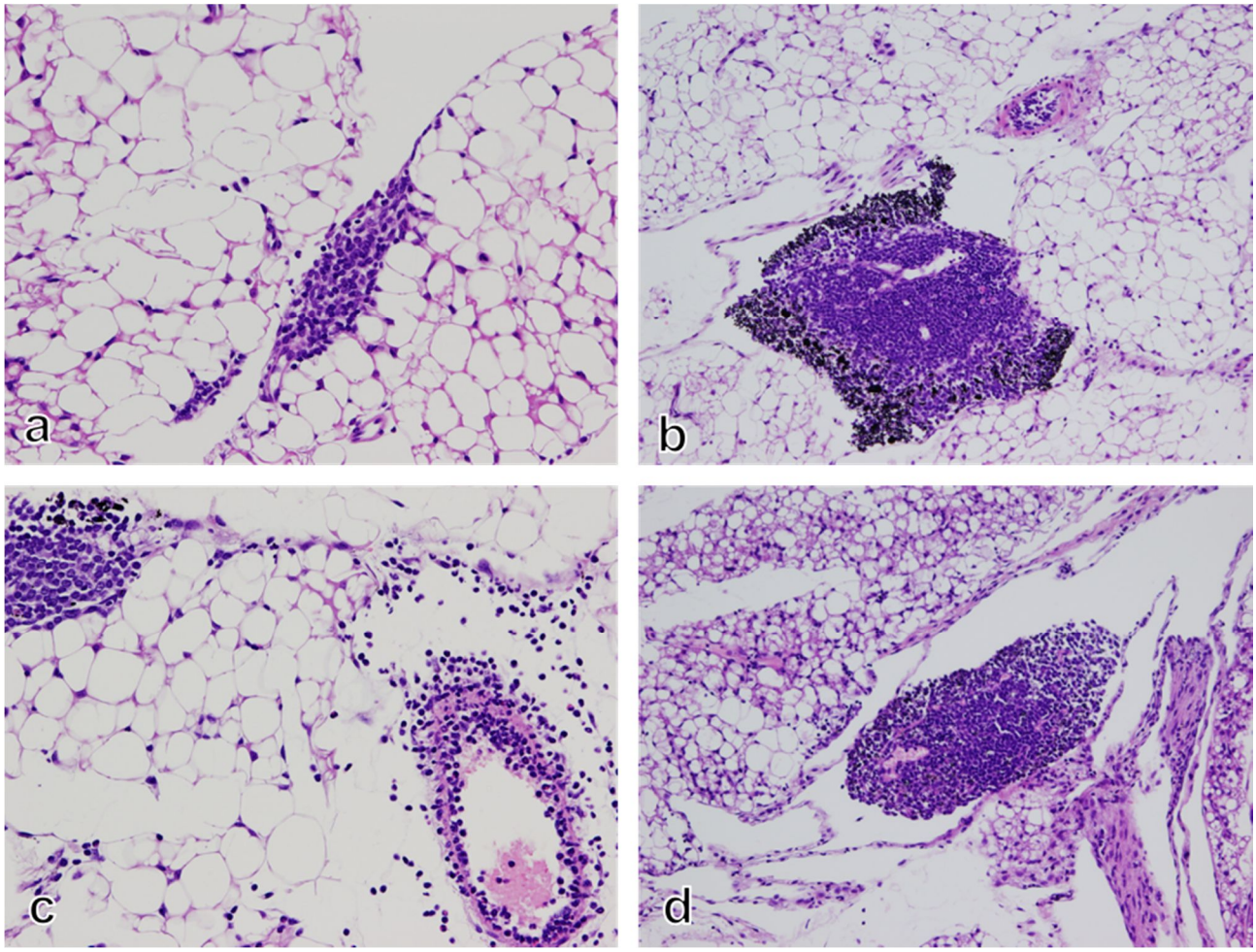


Figure 4. 病理組織学的変化

a；腹膜へのリンパ球浸潤（溶媒対照群, 6 時間後）

b；腹膜への黒褐色色素沈着を伴うリンパ球浸潤（30 nm AgNP PVP プレート群, 6 時間後）

c；腹膜脂肪織の好中球浸潤を伴う血管炎（30 nm AgNP PVP プレート群, 6 時間後）

d；腹膜へのリンパ球浸潤（30 nm AgNP PVP プレート群, 24 時間後）

【実験 A9】

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Table 1. Serum biochemistry in BALB/c mouse treated with AgNpls after 6 hours

		6 h			
		Vehicle	AgNP plate		
			30 nm	50 nm	100 nm
No. of animals		5	5	5	5
TP	g/dL	4.3 ± 0.2	4.2 ± 0.1	4.4 ± 0.1	4.3 ± 0.2
ALB	g/dL	3.0 ± 0.1	2.9 ± 0.1	2.9 ± 0.1	3.0 ± 0.1
A/G		2.2 ± 0.2	2.2 ± 0.1	2.0 ± 0.1	2.2 ± 0.1
BUN	mg/dL	19.5 ± 2.3	20.1 ± 2.9	18.3 ± 1.3	17.4 ± 2.7
Cre	mg/dL	0.10 ± 0.02	0.10 ± 0.02	0.09 ± 0.02	0.09 ± 0.01
Na	mEq/L	152 ± 2	152 ± 1	152 ± 1	151 ± 1
K	mEq/L	3.9 ± 0.4	4.0 ± 0.2	4.3 ± 0.2	4.1 ± 0.2
Cl	mEq/L	111 ± 1	113 ± 1	113 ± 1	115 ± 1**
Ca	mg/dL	7.8 ± 0.3	7.1 ± 0.7	7.2 ± 0.4	7.2 ± 0.5
IP	mg/dL	9.6 ± 1.4	10.9 ± 1.7	10.9 ± 1.6	10.4 ± 1.0
AST	IU/L	60 ± 4	71 ± 19	58 ± 4	57 ± 7
ALT	IU/L	32 ± 3	29 ± 5	27 ± 4	26 ± 9
ALP	IU/L	489 ± 31	479 ± 11	469 ± 49	479 ± 31
LDH	IU/L	421 51	436 137	406 128	327 69
γ-GTP	IU/L	<3	<3	<3	<3
T-CHO	mg/dL	72 ± 3	63 ± 3**	67 ± 5	62 ± 5**
TG	mg/dL	36 ± 8	35 ± 8	25 ± 5*	28 ± 2
BIL	mg/dL	0.04 ± 0.01	0.05 ± 0.01	0.06 ± 0.01	0.05 ± 0.02
Glucose	mg/dL	219 ± 11	199 ± 18	190 ± 22	199 ± 46

Each value represents the mean±S.D.

**, *; Significantly different vs. vehicle at p< 0.01 and 0.05, respectively

【実験 A9】

Table2. Serum biochemistry for BALB/c mouse treated with AgNpls after 24 hours

		24 h			
		Vehicle	AgNP plate		
			30 nm	50 nm	100 nm
No. of animals		3	3	3	3
TP	g/dL	4.4 ± 0.2	4.2 ± 0.2	4.3 ± 0.1	4.4 ± 0.1
ALB	g/dL	3.0 ± 0.0	2.7 ± 0.1 *	2.8 ± 0.1	2.9 ± 0.2
A/G		2.1 ± 0.2	1.8 ± 0.1	1.9 ± 0.2	2.0 ± 0.2
BUN	mg/dL	22.5 ± 4.4	16.7 ± 2.4	21.4 ± 7.1	24.6 ± 5.8
Cre	mg/dL	0.12 ± 0.02	0.11 ± 0.01	0.10 ± 0.01	0.10 ± 0.01
Na	mEq/L	151 ± 1	151 ± 1	152 ± 2	152 ± 2
K	mEq/L	4.6 ± 1.1	4.6 ± 0.7	4.6 ± 0.4	4.9 ± 0.4
Cl	mEq/L	112 ± 2	112 ± 1	113 ± 1	113 ± 2
Ca	mg/dL	8.5 ± 0.2	8.4 ± 0.6	8.4 ± 0.4	8.4 ± 0.2
IP	mg/dL	8.0 ± 0.3	7.7 ± 0.6	8.6 ± 1.2	9.6 ± 1.4
AST	IU/L	48 ± 3	47 ± 5	47 ± 8	62 ± 11
ALT	IU/L	22 ± 3	16 ± 0	18 ± 8	36 ± 18
ALP	IU/L	516 ± 6	407 ± 35 *	391 ± 44*	437 ± 61
LDH	IU/L	402 34	546 108	451 77	435 25
γ-GTP	IU/L	<3	<3	<3	<3
T-CHO	mg/dL	72 ± 12	76 ± 8	79 ± 5	75 ± 4
TG	mg/dL	61 ± 27	39 ± 9	47 ± 25	57 ± 11
BIL	mg/dL	0.06 ± 0.02	0.05 ± 0.00	0.05 ± 0.01	0.05 ± 0.02
Glucose	mg/dL	213 ± 23	186 ± 38	175 ± 13	191 ± 9

Each value represents the mean±S.D.

*; Significantly different vs. vehicle at p<0.05

【実験 A9】

Table 3. Histopathological findings in BALB/c mice 6 hour after intraperitoneal injection of AgNP plate

		6 hr			
	Treatment	Vehicle	AgNP plate		
			30 nm	50 nm	100 nm
Organ and lesion	No.of animals	5	5	5	5
Liver	Nectosis, focul	0	0	0	2
	Mitosis,hepatocyte	1	0	1	2
	Microgranuloma	4	2	1	4
Gall bladder	Edema, submucosa	0	1	2	0
Thoracic lymph node	Dark brown pigment deposition	0	5**	5**	5**
Mesenterium	Inflammatory cell foci, lymphocyte	4	5	5	5
	Inflammatory cell foci, lymphocyte, +	4	2	2	3
	Inflammatory cell foci, lymphocyte, ++	0	3	3	2
	Inflammatory cell, neutrophil	0	3	5**	4*
	Vasculitis	0	5**	4*	3
	Dark brown pigment deposition	0	5**	5**	5**
Kidney	Regenerative tubules	4	3	3	2
Heart	Mineralization, epicardium	2	3	3	3

*, **; significantly different from the vehicle group at $p<0.05$ and 0.01, respectibely.

【実験 A9】

Table 4. Histopathological findings in BALB/c mice 24 hour after intraperitoneal injection of AgNP plate

		24 hr			
	Treatment	Vehicle	AgNP plate		
			30 nm	50 nm	100 nm
Organ and lesion	No.of animals	3	3	3	3
Liver	Microgranuloma	3	3	2	2
Thoracic lymph node	Dark brown pigment deposition	0	3	3	3
Mesenterium	Inflammatory cell foci, lymphocyte	3	3	3	3
	Inflammatory cell foci, lymphocyte, +	3	0	1	3
	Inflammatory cell foci, lymphocyte, ++	0	3	2	0
	Inflammatory cell, neutrophil	1	3	3	3
	Vasculitis	0	1	0	0
	Dark brown pigment deposition	0	3	3	3
Kidney	Regenerative tubules	2	3	2	2
Heart	Mineralization, epicardium	3	2	2	0

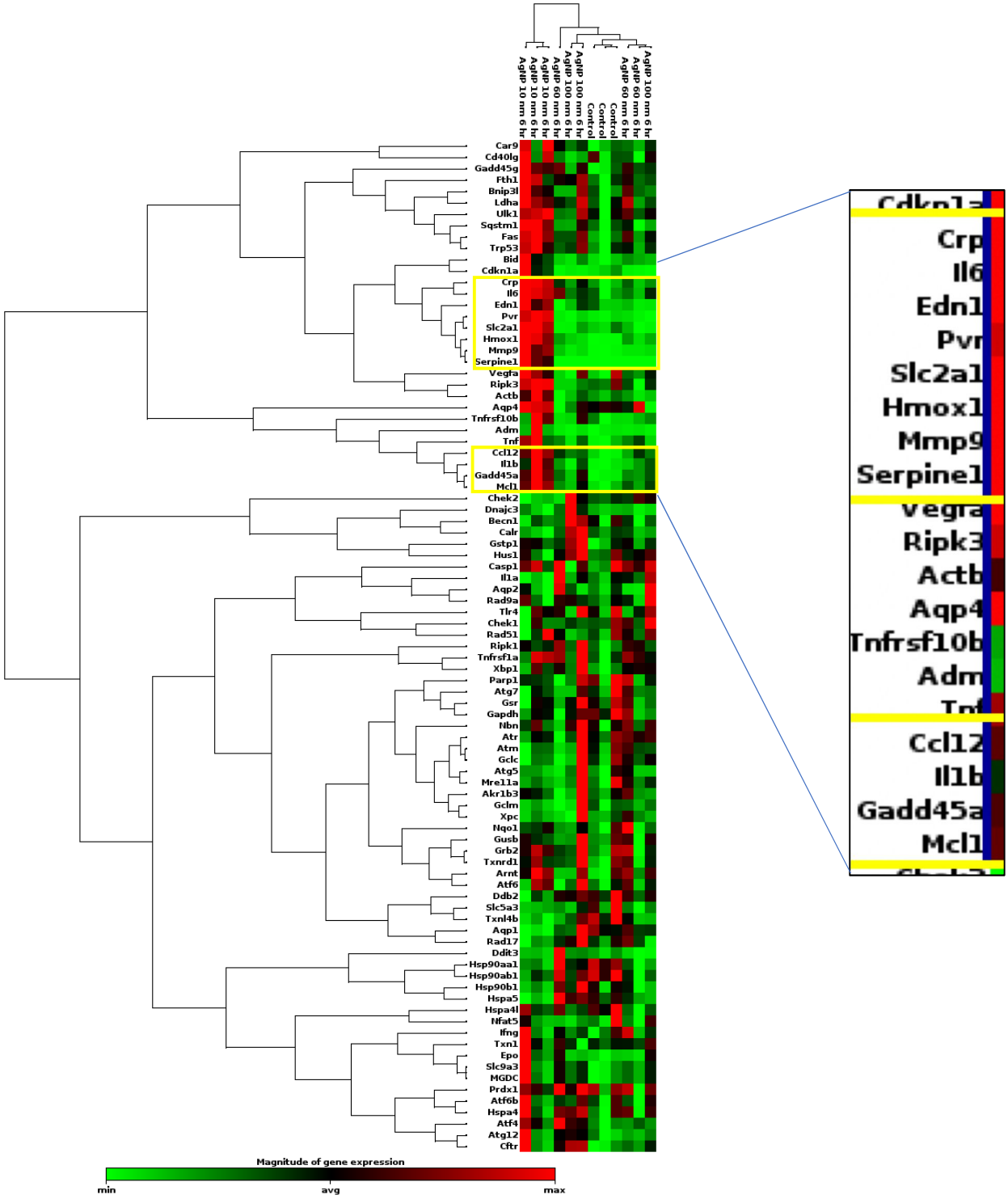

Figure 5. 直径 10, 60 及び 100 nm AgNP 粒子腹腔内投与 6 時間後のマウス肝臓の PCR array クラスタリング解析

【実験 A10】