Species	**Stressor**	**Secretion of pro-inflammatory mediators**	**Transcription of acute phase proteins**	**Reference**
Mouse	Ultrafine carbon particles	No significant increase in polymorphonuclear cells (includes neutrophils) in BALF.	Yes, increased *Saa3* gene expression at 24 h.	[1]
Mouse	Diesel exhaust particles	Yes, significant increase of neutrophils in BALF.	No expression of *Sap, Saa1 or Saa3* on liver tissue. Increased expression of *Saa3* in lung tissue.	[2-4]
Mouse	Carbon black	No significant increase of neutrophils in BALF.	No expression of *Sap, Saa1 or Saa3* on liver tissue. Increased expression of *Saa3* in lung tissue.	[2-4]
Mouse	Titanium dioxide nanoparticles	Yes, significant increased numbers of neutrophils in BALF.	Yes, increased expression of *Saa1* and *Saa3* in lung tissue	[5,6]
Mouse	Carbon black nanoparticles	Yes, significant increase of neutrophil number 1, 3 and 28 days after exposure.	Yes, significant *Saa1, Saa2* and *Saa3* gene expression increase in lung tissue, at days 1, 3 and 28 after exposure. *Saa3* gene expression increase in liver tissue at day 1 after exposure.	[7,8]
Mouse	Titanium dioxide nanoparticles	Yes, increased neutrophil numbers in BALF 1 and 3 days after exposure to 54 µg, and 1, 3 and 28 days after exposure to 162 µg.	Yes, increased mRNA expression of *Saa3* in lung issue at days 1, 3 and 28 after exposure with 162 µg, and at day 3 with 54 µg.	[3,9]
Mouse	Carbon black nanoparticles	Yes, increased neutrophil numbers in BALF 1, 3 and 28 days after exposure to 54 and 162 µg, and 1 and 3 days after exposure to 18 µg.	Yes, increased mRNA expression of *Saa3* in lung issue at days 1, 3 and 28 after exposure with 54 µg and 162 µg, and at days 1 and 3 with 18 µg.	[3,9]
Mouse	Diesel exhaust particles	Yes, increased neutrophil numbers in BALF 3 days after exposure to 54 µg, and 1 and 3 days after exposure to 162 µg.	Yes, increased *Saa3* gene expression after 1, 3 and 28 days with 162 µg, at day 28 with 54 µg, and at day 3 with 18 µg.	[10]
Mouse	Multiwalled carbon	Yes, increased neutrophil numbers	Yes, increased differential expression of acute phase	[11,12]

Species	Stressor	Secretion of pro-inflammatory mediators	Transcription of acute phase proteins	Reference
	nanotubes (referred as CNT_{small})	in BALF 1, 3 and 28 days after exposure to 18, 54 and 162 µg.	response genes in lung and liver tissue.	
Mouse	Multiwalled carbon nanotubes (referred as CNT_{large})	Yes, increased neutrophil numbers in BALF 1, 3 and 28 days after exposure to 18, 54 and 162 µg.	Yes, increased differential expression of acute phase response genes in lung and liver tissue.	[11,12]
Mouse	Sanding dust from epoxy composite containing carbon nanotubes	Yes, increased neutrophil numbers in BALF 1 and 3 days after exposure to 54, 162 and 486 µg, and 28 days after exposure to 486 µg.	Yes, significant increase in *Saa1* mRNA expression in liver tissue (only assessed 1 days after exposure to 486 µg).	[13]
Mouse	Sanding dust from epoxy composite without carbon nanotubes	Yes, increased neutrophil numbers in BALF 1 day after exposure to 54, 162 and 486 µg, 3 days after exposure to 162 and 486 µg, and 28 days after exposure to 486 µg.	Yes, significant increase in *Saa1* mRNA expression in liver tissue (only assessed 1 days after exposure to 486 µg).	[13]
Mouse	Carbon nanotubes	Yes, increased neutrophil numbers in BALF 1, 3 and 28 after exposure to 18, 54 and 162 µg.	Yes, significant increase in *Saa1* mRNA expression in liver tissue (only assessed 1 days after exposure to 162 µg).	[13]
Mouse	Graphene oxide	Yes, increased neutrophil numbers in BALF 1 and 3 days after exposure to 18, 54 and 162 µg.	Yes, increased mRNA expression of *Saa3* in lung tissue, at all dose 1 and 3 days after exposure. Increased gene expression of *Saa1* in liver tissue 1 day after exposure to 18 µg, and 3 days after exposure to 162 µg.	[14]
Mouse	Reduced graphene oxide	Yes, increased neutrophil numbers 1 and 3 days after exposure to 162, and 90 days after exposure to 18, 54 and 162 µg.	Yes, increased mRNA expression of *Saa3* in lung tissue, 3 days after exposure to 162 µg. No changes in gene expression of *Saa1* in liver tissue.	[14]

Species	Stressor	Secretion of pro-inflammatory mediators	Transcription of acute phase proteins	Reference
Mouse	Carbon black	Yes, increased neutrophil numbers in BALF 1, 3, 28 and 90 days after exposure.	Yes, increased mRNA expression of *Saa3* in lung tissue 1, 3, 28 and 90 days after exposure. Increased gene expression of *Saa1* in liver tissue 1 day after exposure.	[14]
Mouse	Unmodified rutile (TiO2)	Yes, increased neutrophil numbers in BALF 1 and 3 days after exposure to 54 and 162 µg, and 28 days after exposure to 162 µ.	Yes, increased expression of *Saa3* mRNA in lung tissue 1, 3 and 28 days after exposure to 162 µg. Increased expression of *Saa1* in liver tissue 1 day after exposure to 162 µg and 3 days after exposure to 54 and 162 µg.	[15]
Mouse	Surface modified rutile (TiO2)	Yes, increased neutrophil numbers in BALF 1, 3 and 28 days after exposure to 54 and 162 µg.	Yes, increased expression of *Saa3* mRNA in lung tissue 1, and 28 days after exposure to 54 µg, and 1, 3 and 28 days after exposure to 162 µg. Increased expression of *Saa1* in liver tissue 1 day after exposure to 162 µg.	[15]
Mouse	Particulate matter from non-commercial airfield	Yes, increased neutrophil numbers in BALF 1 day after exposure to 18 and 54 µg.	Yes, increased expression of *Saa3* mRNA in lung tissue and *Saa1* mRNA in liver tissue after 1 day of exposure to 54 µg. No effect after 28 and 90 days.	[16]
Mouse	Particulate matter from commercial airport	Yes, increased neutrophil numbers in BALF 1 day after exposure to 18 and 54 µg.	Yes, increased expression of *Saa3* mRNA in lung tissue after 1 day of exposure to 18 and 54 µg. No effect after 28 and 90 days.	[16]
Mouse	Diesel exhaust particles	Yes, increased neutrophil numbers in BALF 1 day after exposure to 54 and 162 µg, and 28 days after exposure to 162 µg.	Yes, increased expression of *Saa3* mRNA in lung tissue after 1 day of exposure to 54 and 162 µg, and increased expression of *Saa1* mRNA in liver tissue 1 day after exposure to 162 µg. No effect after 28 days.	[16]

Species	Stressor	Secretion of pro-inflammatory mediators	Transcription of acute phase proteins	Reference
Mouse	Carbon black	Yes, increased neutrophil in BALF after 1, 28 and 90 days of exposure.	Yes, increased expression of *Saa3* mRNA in lung tissue at day 1 and day 90.	[16]
Mouse	Uncoated zinc oxide nanoparticles	No increase of neutrophil numbers in BALF after exposure.	Yes, increase on Saa3 mRNA in lung tissue 1 day after exposure to 2 µg. No effect 3 and 28 days after exposure.	[17]
Mouse	Coated zinc oxide nanoparticles	Yes, increased neutrophil numbers in BALF 1 and 3 days after exposure to 2 µg, and 28 days after exposure to 0.2 and 0.7 µg.	Yes, increase on Saa3 mRNA in lung tissue 1 day after exposure to 0.7 and 2 µg. No effect 3 and 28 days after exposure.	[17]
Mouse	Unmodified hallosytes	Yes, increased neutrophil numbers in BALF 28 days after exposure to 18 µg.	No effect on Saa3 mRNA expression in lung tissue nor *Saa1* mRNA expression in liver tissue.	[18]
Mouse	Surface modified hallosytes	Yes, increased neutrophil numbers in BALF 1 and 3 days after exposure to 54 µg, and 28 days after exposure to 6 and 54 µg.	Yes, increase *Saa3* mRNA expression in lung tissue 1 and 3 days after exposure to 54 µg. No effect on *Saa1* mRNA expression on liver tissue.	[18]
Mouse	Carbon black	Yes, increased neutrophil numbers in BALF 1, 3 and 28 days after exposure to 162 µg.	Yes, increase *Saa3* mRNA expression in lung tissue 1, 3 and 28 days after exposure. No effect on *Saa1* mRNA expression on liver tissue.	[18]
Mouse	Nanofil9 (Organomodified nanoclay)	Yes, increased neutrophil numbers in BALF 1 day after exposure to 54 µg, and 3 days after exposure to 18 and 54 µg.	Yes, increased *Saa3* mRNA expression in lung tissue 1 day after exposure to all doses, and 3 days after exposure to 6 and 18 µg.	[19]
Mouse	NanofilSE3000 (Organomodified nanoclay)	Yes, increased neutrophil numbers in BALF 1 day after exposure to 54 and 162 µg, and 3 days	Yes, increased *Saa3* mRNA expression in lung tissue 1 day after exposure to 54 and 162 µg, and 3 days after exposure to 54 µg.	[19]

Species	Stressor	Secretion of pro-inflammatory mediators	Transcription of acute phase proteins	Reference
		after exposure to 162 µg.		
Mouse	Bentonite	Yes, increased neutrophil numbers in BALF 1 and 3 days after exposure to 18, 54 and 162 µg.	Yes, increased *Saa3* mRNA expression in lung tissue 1 and 3 days after exposure to all doses, and 28 days after exposure to 162 µg.	[19]
Mouse	Carbon black	Yes, increased neutrophil numbers in BALF 1 and 3 days after exposure to 18, 54 and 162 µg, and 28 day after exposure to 162 µg.	Yes, increased *Saa3* mRNA expression in lung tissue 1 and 3 days after exposure to all doses, and 28 days after exposure to 54 and 162 µg.	[19]
Mouse	Zinc oxide	Yes, increased neutrophil numbers in BALF 1 day after exposure to 0.7 µg.	Yes, increased *Saa1* mRNA expression in liver tissue 1 day after exposure to 0.7 µg. No change in *Saa3* mRNA expression in lung tissue.	[20]
Mouse	Copper oxide	Yes, increased neutrophil numbers in BALF 1 day after exposure to 2, 6 and 12 µg.	Yes, increased *Saa3* mRNA expression in lung tissue 1 day after exposure to 2 and 6 µg. Increased *Saa1* mRNA expression in liver tissue 1 day after exposure to 6 µg.	[20]
Mouse	Aluminum oxide	Yes, increased neutrophil numbers in BALF 1 and 28 days after exposure to 54 µg.	No change in *Saa3* mRNA expression in lung tissue.	[20]
Mouse	Tin dioxide	Yes, increased neutrophil numbers in BALF 1 and 28 days after exposure to 162 µg.	Yes, increased Saa3 mRNA expression in lung tissue and Saa1 mRNA expression in liver tissue, 1 day after exposure to 162 µg.	[20]
Mouse	Titanium dioxide	Yes, increased neutrophil numbers in BALF 1 and 28 days after exposure.	Yes, increased *Saa3* mRNA expression in lung tissue and *Saa1* mRNA expression in liver tissue 1 day after exposure.	[20]
Mouse	Carbon black	Yes, increased neutrophil numbers in BALF 1 and 28 days after exposure.	Yes, increased *Saa3* mRNA expression in lung tissue 1 and 28 days after exposure. Increased *Saa1* mRNA	[20]

Species	Stressor	Secretion of pro-inflammatory mediators	Transcription of acute phase proteins	Reference
			expression in liver tissue 1 day after exposure.	
Mouse	Titanium dioxide (NM-1)	Yes, increased neutrophil numbers in BALF 1, and 3 days after exposure to 162 µg.	Yes, increased *Saa3* mRNA expression in lung tissue 1 day after exposure to 162 µg. No change in *Saa1* mRNA expression in liver tissue.	[21]
Mouse	Titanium dioxide (NM-2)	Yes, increased neutrophil numbers in BALF 1, and 3 days after exposure to 162 µg.	Yes, increased *Saa3* mRNA expression in lung tissue 1 day after exposure to 162 µg. No change in *Saa1* mRNA expression in liver tissue.	[21]
Mouse	Tube titanium dioxide	Yes, increased neutrophil numbers in BALF 1, 3 and 28 days after exposure to 54 and 162 µg.	Yes, increased *Saa3* mRNA expression in lung tissue 1 and 3 days after exposure to 54 and 162 µg. Increased *Saa1* mRNA expression in liver tissue 1 day after exposure to 162 µg.	[21]
Mouse	Cube titanium dioxide	No increase in neutrophil numbers in BALF.	No change in *Saa3* mRNA expression in lung tissue. No change in *Saa1* mRNA expression in liver tissue.	[21]
Mouse	Quartz	Yes, increased neutrophil numbers in BALF 1 day after exposure to 54 and 162 µg, and 3 days after exposure to 162 µg.	Yes, increased *Saa3* mRNA expression in lung tissue 1 day after exposure to 54 and 162 µg, and 3 days after exposure to 162 µg. No change in *Saa1* mRNA expression in liver tissue.	[21]

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