

Supplementary Table 1. Plasma MPO, cytokine, and chemokine levels in Healthy Controls.

	Admission	1 hour	3 hour	24 hour
MPO (pg/mL)				
Healthy-Sham	29.96 (22.98–34.78)	31.17 (–23.64–32.42)	33.59 (25.06–36.52)	27.71 (23.89–34.87)
Healthy-RIC	28.79 (24.14–47.45)	31.86 (25.86–44.28)	33.40 (28.96–45.67)	32.42 (26.55–47.69)
IL-6 (pg/mL)				
Healthy-Sham	0.28 (0.00–0.59)	0.41 (0.28–0.74)	0.36 (0.16–0.38)	0.51 (0.16–0.63)
Healthy-RIC	0.00 (0.00–0.00)	0.43 (0.00–0.60)	0.47 (0.13–0.54)	0.00 (0.00–0.21)
TNF-α (pg/mL)				
Healthy-Sham	1.76 (1.72–1.97)	1.74 (1.59–2.13)	1.82 (1.51–2.10)	1.84 (1.50–1.85)
Healthy-RIC	2.01 (1.73–2.24)	1.93 (1.51–2.11)	1.76 (1.43–2.06)	2.08 (1.58–2.18)
IL-10 (pg/mL)				
Healthy-Sham	0.31 (0.26–0.31)	0.30 (0.26–0.43)	0.34 (0.26–0.46)	0.29 (0.25–0.42)
Healthy-RIC	0.27 (0.20–0.36)	0.28 (0.23–0.33)	0.30 (0.26–0.33)	0.25 (0.21–0.34)
IL-15 (pg/mL)				
Healthy-Sham	2.26 (1.89–2.68)	2.45 (2.24–4.16)	2.46 (2.33–3.79)	2.25 (2.01–3.08)
Healthy-RIC	1.99 (1.76–3.43)	3.16 (2.84–5.45)	3.53 (1.29–4.98)	2.04 (1.51–3.34)
IL-16 (pg/mL)				
Healthy-Sham	134.76 (127.45–152.24)	189.63 (149.41–194.89)	193.64 (125.21–213.71)	167.23 (114.55–212.41)
Healthy-RIC	172.95 (137.92–198.69)	223.35 (154.26–684.09)	215.39 (79.57–1473.43)	181.71 (169.56–193.16)
IL-17A (pg/mL)				
Healthy-Sham	2.50 (1.79–3.84)	1.54 (0.00–2.22)	1.79 (0.85–4.19)	3.02 (0.96–3.84)
Healthy-RIC	1.57 (1.18–2.10)	2.04 (0.91–4.48)	0.00 (0.00–2.08)	1.19 (0.00–1.99)
IL-12 p40 (pg/mL)				
Healthy-Sham	124.70 (76.45–150.05)	101.37 (66.22–114.14)	105.61 (56.78–165.18)	105.92 (75.33–188.50)
Healthy-RIC	100.29 (78.77–130.64)	99.55 (62.12–131.26)	71.64 (34.59–140.20)	108.79 (75.01–122.86)
IFN-γ (pg/mL)				
Healthy-Sham	5.43 (3.67–6.27)	5.50 (3.67–5.58)	4.36 (4.28–5.69)	3.96 (3.80–5.56)
Healthy-RIC	4.84 (4.13–8.23)	4.97 (3.99–7.96)	4.81 (3.95–8.93)	5.18 (3.21–6.31)
IL-5 (pg/mL)				
Healthy-Sham	0.90 (0.64–0.91)	1.44 (0.78–2.03)	0.87 (0.76–1.56)	0.67 (0.62–0.71)
Healthy-RIC	0.58 (0.28–1.07)	0.96 (0.60–1.31)	1.06 (0.70–1.29)	0.66 (0.46–0.93)

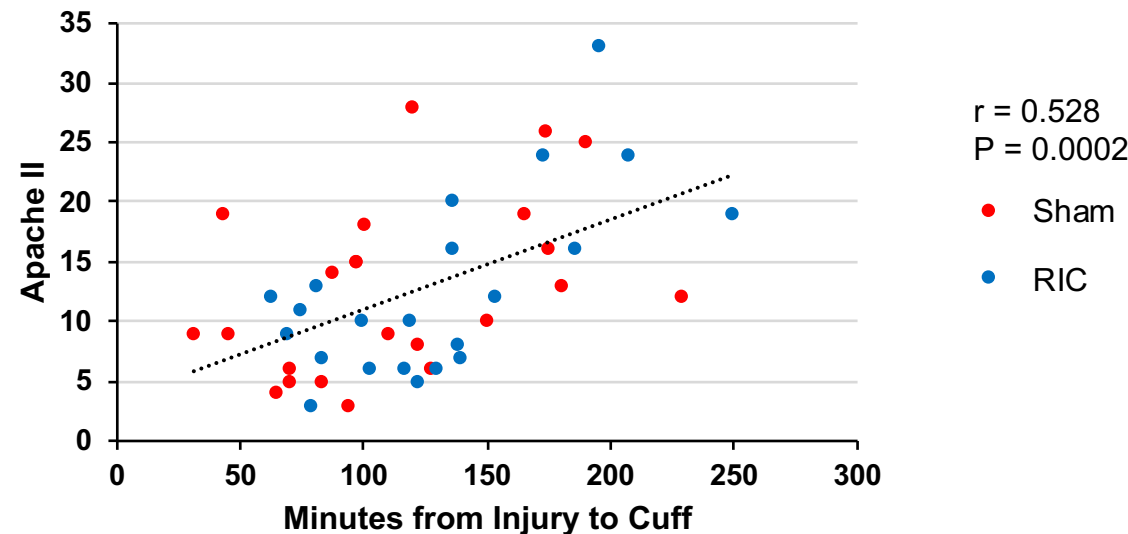
IL-7 (pg/mL)				
Healthy-Sham	2.52 (1.26–2.98)	2.39 (1.42–4.78)	1.73 (0.86–2.11)	3.21 (2.01–3.51)
Healthy-RIC	2.21 (1.72–2.97)	2.14 (1.63–2.87)	1.63 (0.56–3.06)	2.71 (1.13–3.96)
VEGF (pg/mL)				
Healthy-Sham	20.27 (15.28–24.96)	19.29 (7.23–22.93)	20.42 (11.94–25.49)	19.97 (12.51–24.41)
Healthy-RIC	15.71 (14.26–24.59)	14.28 (10.97–26.18)	6.89 (3.31–20.58)	17.92 (11.79–21.65)
MDC (pg/mL)				
Healthy-Sham	655.05 (572.49–919.92)	683.88 (560.83–756.85)	630.11 (560.87–674.14)	577.33 (513.49–830.08)
Healthy-RIC	669.09 (568.23–932.30)	880.78 (567.36–961.33)	869.40 (598.95–914.89)	926 (631.19–979.74)
TARC (pg/mL)				
Healthy-Sham	41.69 (33.84–43.10)	37.09 (24.99–40.39)	37.14 (23.70–38.23)	44.85 (30.58–52.83)
Healthy-RIC	31.83 (25.08–58.11)	21.99 (17.11–43.86)	23.13 (21.60–35.41)	27.98 (20.58–52.05)
MIP-1β (pg/mL)				
Healthy-Sham	48.50 (29.70–49.97)	42.95 (26.85–53.07)	44.27 (26.46–49.71)	51.27 (25.91–65.88)
Healthy-RIC	30.30 (28.15–34.15)	30.65 (26.50–36.84)	30.54 (28.49–36.30)	28.23 (28.07–38.70)
MCP-1 (pg/mL)				
Healthy-Sham	58.85 (57.57–72.36)	52.78 (46.86–70.70)	56.14 (51.62–69.30)	59.15 (49.53–64.94)
Healthy-RIC	53.27 (45.40–62.07)	52.35 (44.22–69.37)	55.50 (47.61–76.00)	58.68 (49.09–69.53)
IL-8 (pg/mL)				
Healthy-Sham	2.86 (2.29–3.42)	2.22 (1.83–2.64)	2.32 (1.92–2.57)	3.19 (2.20–3.21)
Healthy-RIC	1.72 (1.15–2.44)	1.43 (0.81–1.96)	1.84 (1.79–2.06)	2.09 (1.52–3.10)
Eotaxin (pg/mL)				
Healthy-Sham	96.82 (77.69–115.77)	83.50 (63.95–131.85)	79.68 (68.78–146.04)	81.41 (71.34–123.14)
Healthy-RIC	58.71 (46.82–110.16)	65.55 (57.61–120.57)	88.72 (64.02–96.80)	60.27 (48.09–136.46)
IP-10 (pg/mL)				
Healthy-Sham	292.51 (181.87–363.47)	344.70 (199.22–353.28)	328.83 (197.56–386.42)	255.96 (176.72–270.80)
Healthy-RIC	206.39 (182.56–294.04)	236.31 (190.61–324.22)	235.33 (190.15–323.29)	255.01 (190.37–254.71)
MCP-4 (pg/mL)				
Healthy-Sham	31.71 (20.83–35.47)	27.68 (22.04–29.35)	23.29 (18.98–25.86)	36.52 (20.56–41.48)
Healthy-RIC	27.28 (25.46–46.57)	20.14 (18.19–42.73)	23.68 (17.59–47.28)	39.58 (21.41–54.08)

Supplementary Table 1. Plasma levels of myeloperoxidase (MPO), cytokines, and chemokines in healthy controls. Values represent median (interquartile range).

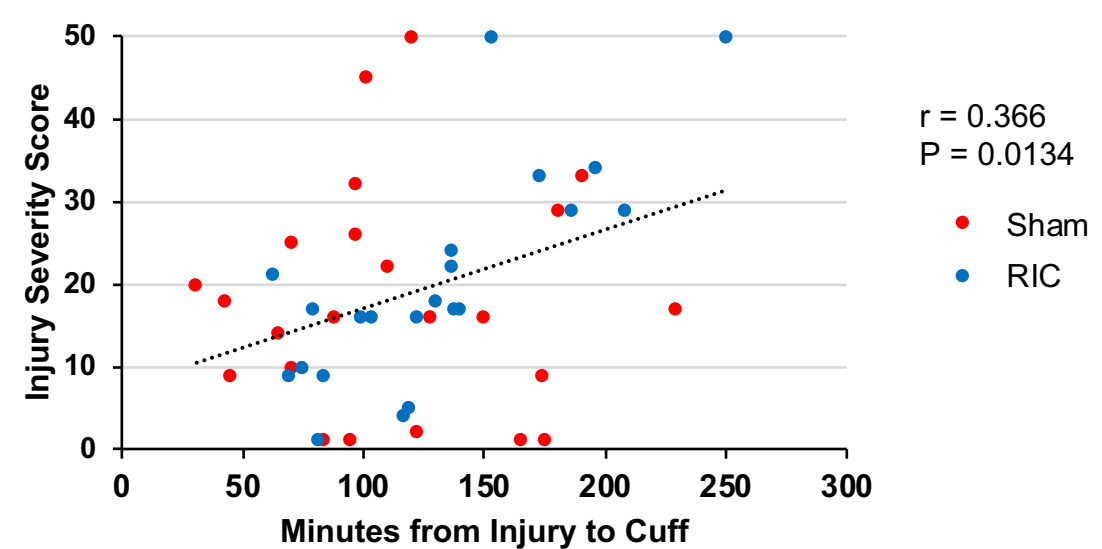
Supplementary Table 2. Clinical studies on RIC evaluating plasma levels of humoral mediators.

Study	Study Setting	Outcome Measures (plasma levels)	Findings
Nielsen et al ³³	Kidney transplant	CXCL11, GM-CSF, CX3CL1, INF γ , IL-10, MIP3 α , IL-12, IL-13, IL-17a, IL-1 β , IL-2, IL-21, IL-4, IL-23, IL-5, IL-6, IL-7, IL-8, MIP1 α , MIP1 β , TNF- α	No significant changes
Hummitzsch et al ³⁵	Healthy volunteers	CXCL5, Growth hormone, IGFBP3, IL-1 α , IL-6, Angiopoietin 2, VEGF, PECAM-1, sTie-2, IL-8, MCSF	No significant changes
Dewitte et al ³⁶	Vascular injury in healthy volunteers	SDF-1 α , MCP-1, ADMA, VEGF, SOD	SOD significantly increased
Gedik et al ³⁴	Coronary artery bypass graft surgery	Apo-A1, EPO, GDF-11, GHRH, GHRP, GLP-1, GH, HIF-1 α , IL-1 α , IL-1 β , IL-2, IL-6, IL-8, IL-10, IL-15, IL-17, IL-33, leptin, pentraxin-3, prolactin, RNase-1, SDF-1 α , survivin, thymosin- β 4, TNF- α	IL-1 α significantly increased

Supplementary Figure 1A



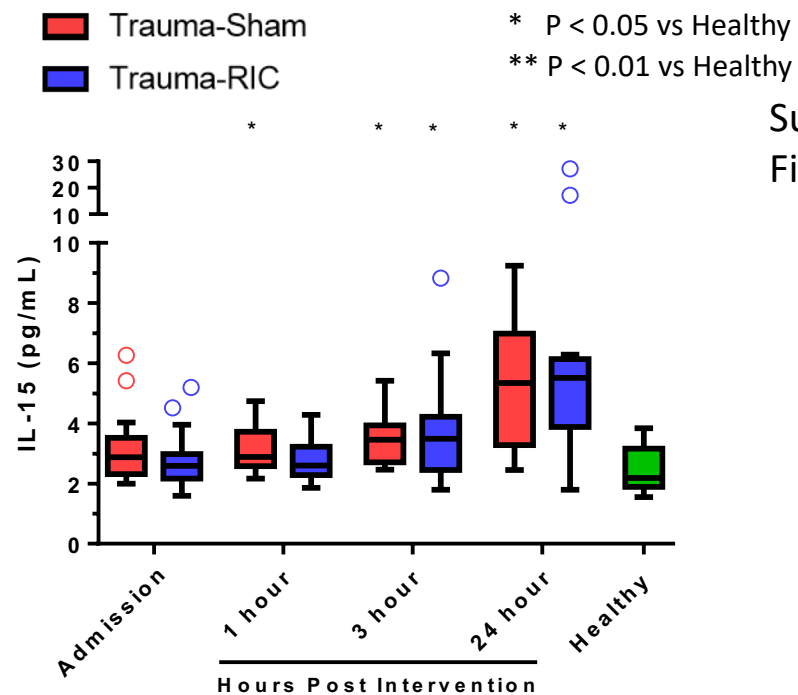
Supplementary Figure 1B



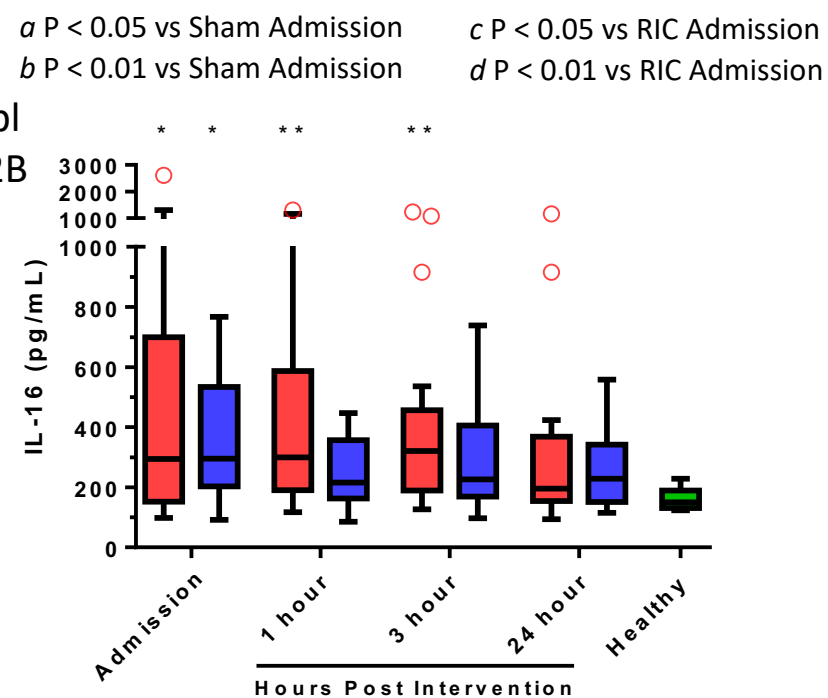
Supplementary Figure 1: Pearson's correlation comparing APACHE II score to the duration from the time of injury to application of Sham or RIC interventions. B. Pearson's correlation comparing Injury Severity Score to the duration from the time of injury to application of Sham or RIC interventions.

Red circle = Sham; Blue circle = RIC

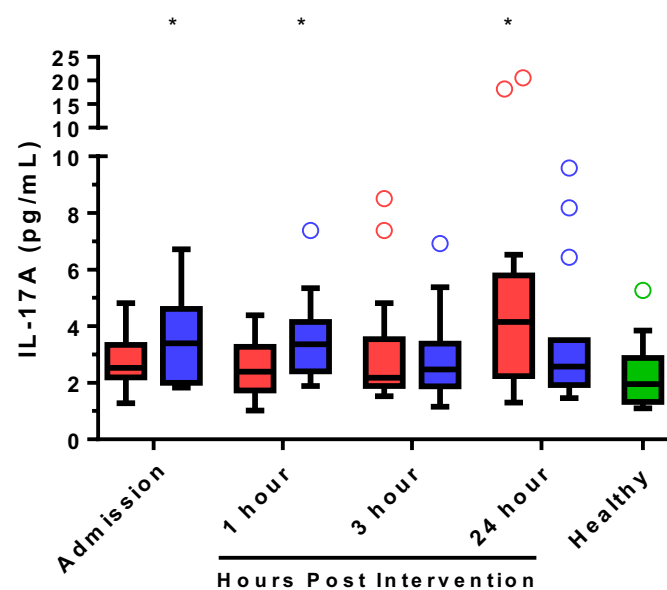
Suppl
Fig 2A



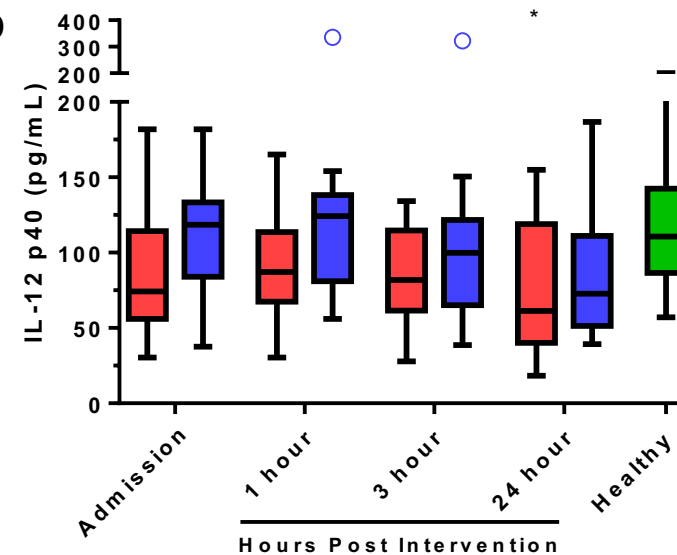
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Fig 2B



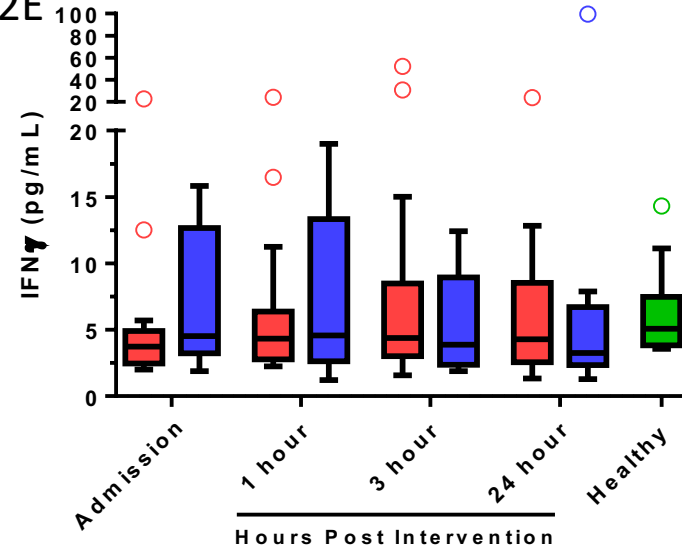
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Fig 2C



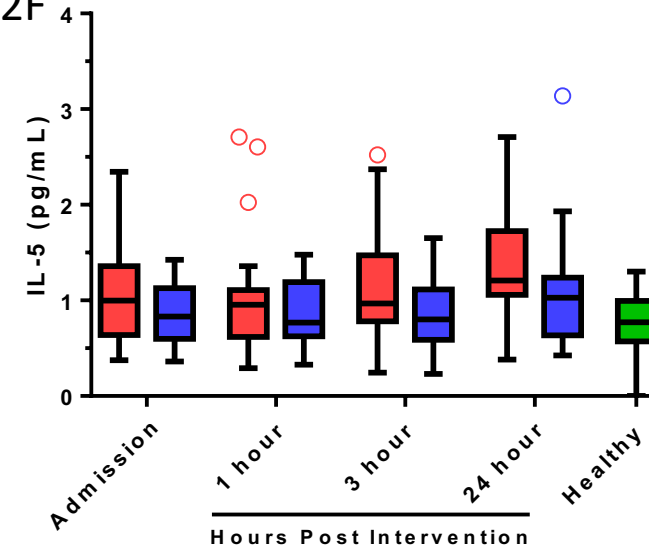
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Fig 2D



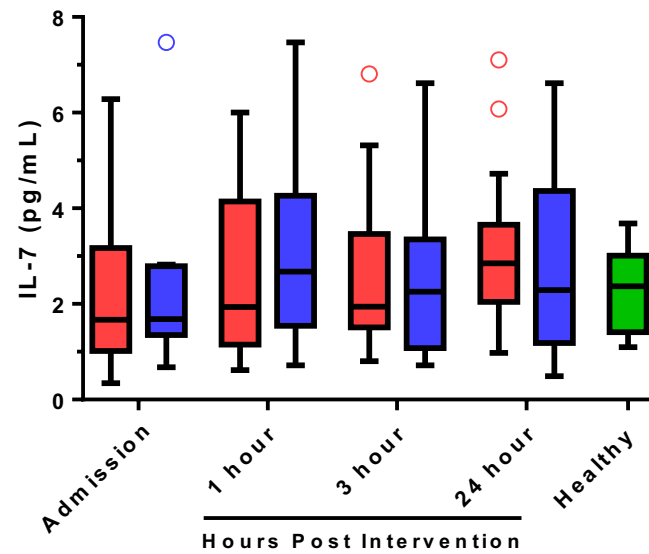
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Fig 2E



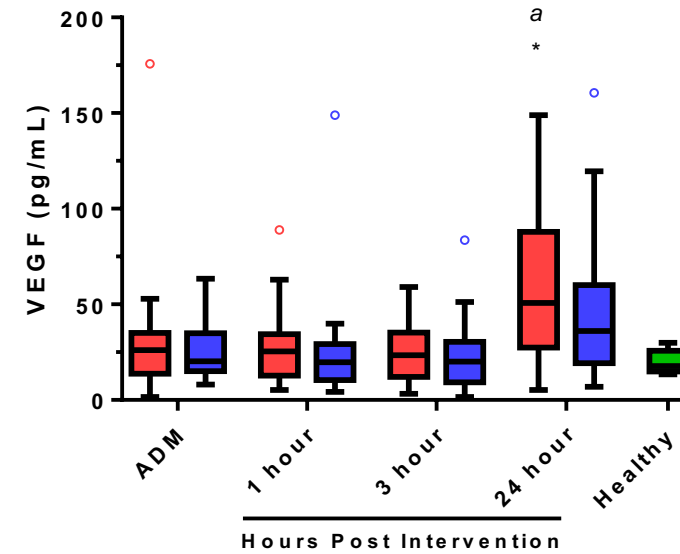
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Fig 2F



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Fig 2G



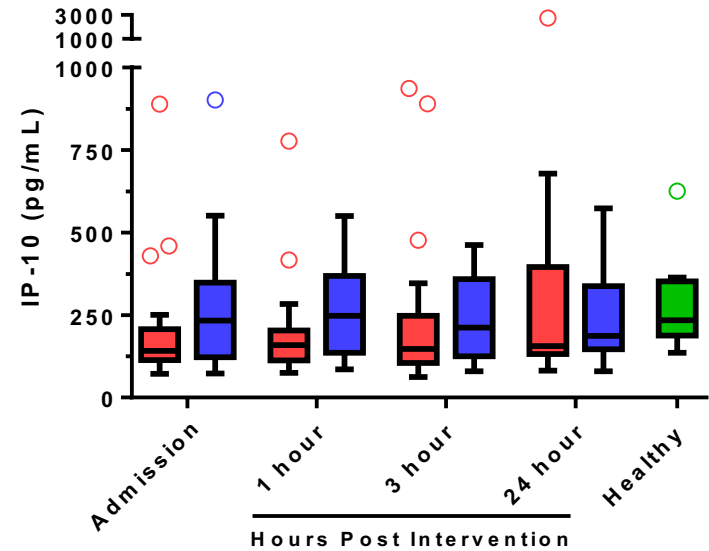
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Fig 2H



Supplementary Figure 2: Plasma cytokine levels in trauma patients. A. IL-15 B. IL-16 C. IL-17 D. IL-12p40
E. IFN- γ F. IL-5 G. IL-7 H. VEGF.

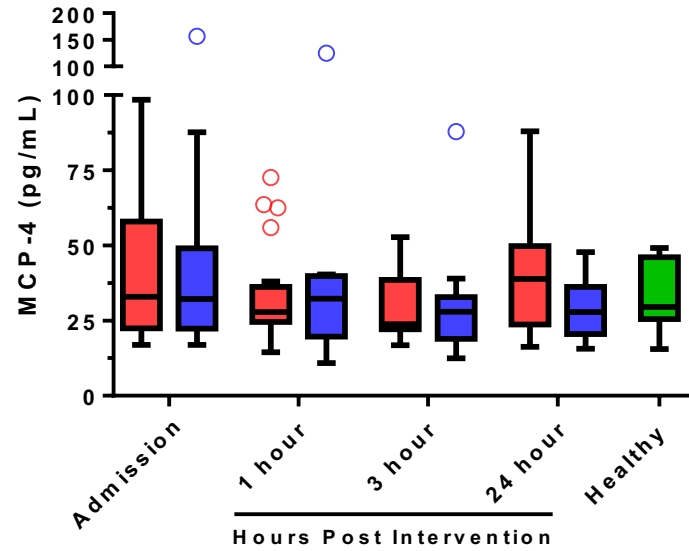
Red open circle = Trauma-Sham. Blue open circle = Trauma-RIC. Green open circle = Healthy Controls. Lines represent the median and interquartile range. *a* $P < 0.05$ vs Sham Admission. *b* $P < 0.01$ vs Sham Admission. *c* $P < 0.05$ vs RIC Admission. *d* $P < 0.01$ vs RIC Admission. * $P < 0.05$ vs Healthy Controls. ** $P < 0.01$ vs Healthy Controls.

Suppl
Fig 3A



Trauma-Sham
Trauma-RIC

Suppl
Fig 3B



Supplementary Figure 3. Plasma chemokine levels in trauma patients. A. IP-10 B. MCP-4

Red open circle = Trauma-Sham. Blue open circle = Trauma-RIC. Green open circle = Healthy Controls. Lines represent the median and interquartile range.