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Supplemental information

**Neuraminidase and SIGLEC15 modulate
the host defense against pulmonary aspergillosis**

Intan M.W. Dewi, Cristina Cunha, Martin Jaeger, Mark S. Gresnigt, Marina E. Gkountzinopoulou, Fadel M. Garishah, Cláudio Duarte-Oliveira, Cláudia F. Campos, Lore Vanderbeke, Agustin Resendiz Sharpe, Roger J. Brüggemann, Paul E. Verweij, Katrien Lagrou, Greetje Vande Velde, Quirijn de Mast, Leo A.B. Joosten, Mihai G. Netea, Andre J.A.M. van der Ven, Joost Wauters, Agostinho Carvalho, and Frank L. van de Veerdonk

Supplementary figures

Figure S1.

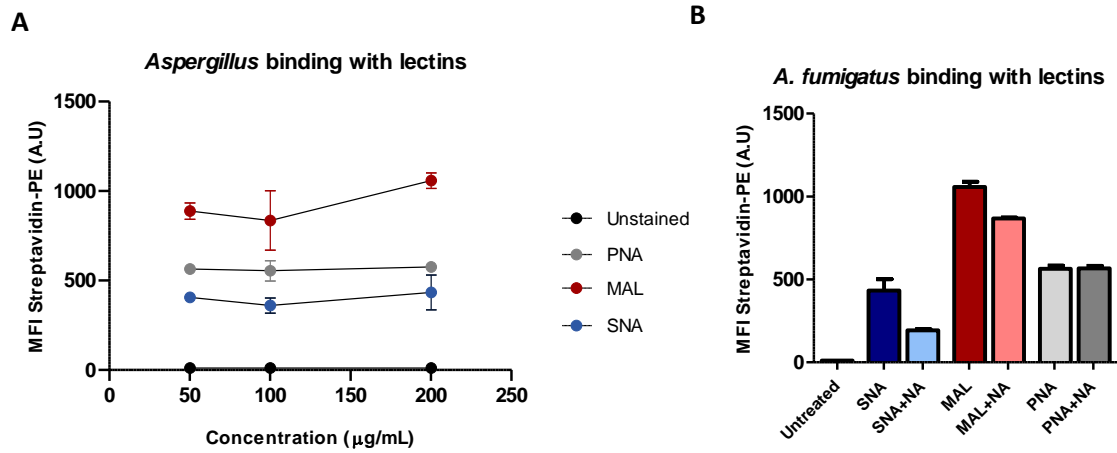


Figure S1. Binding of *A. fumigatus* conidia with lectins. Related to Figure 1A

(A) *A. fumigatus* conidia were incubated with different concentrations of *Maackia amurensis* lectin II (MAL II), *Sambucus nigra* agglutinin (SNA), or Peanut agglutinin (PNA), labelled with a secondary fluorophore (Streptavidin), and evaluated with flowcytometry. (B) *A. fumigatus* were treated as mentioned in (A), in the presence or absence of *C. perfringens* neuraminidase.

Figure S2.

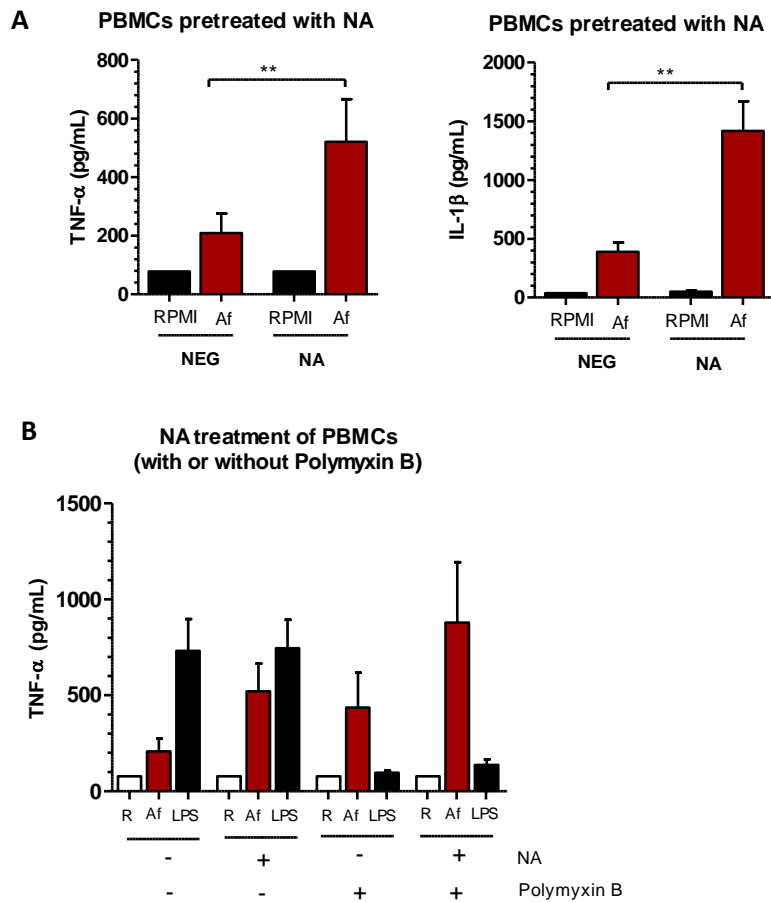


Figure S2. (A) TNF- α and IL-1 β were measured from culture supernatants of PBMCs which were stimulated with *A. fumigatus* conidia after prior treatment with NA (n=9). Data are presented as mean \pm SEM (**p<0.01, *p<0.05). (B) TNF- α were measured from culture supernatants of PBMCs which were stimulated with *A. fumigatus* conidia, LPS, or remain unstimulated, in the presence or absence of NA and/or polymyxin B (n=6). Data are presented as mean \pm SEM.

Figure S3.

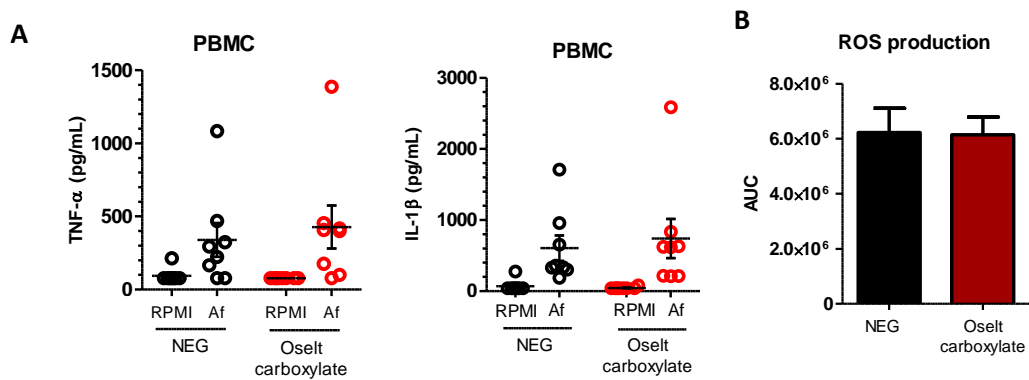


Figure S3. Effect of oseltamivir carboxylate on *A. fumigatus*-induced cytokine production in PBMCs.

Related to Figure 2A. (A) TNF- α and IL-1 β were measured from culture supernatants of PBMCs which were stimulated with *A. fumigatus* conidia, in the presence or absence of oseltamivir carboxylate (n=8). (B) ROS induction was measured from PBMCs stimulated with *A. fumigatus* conidia.

Figure S4.

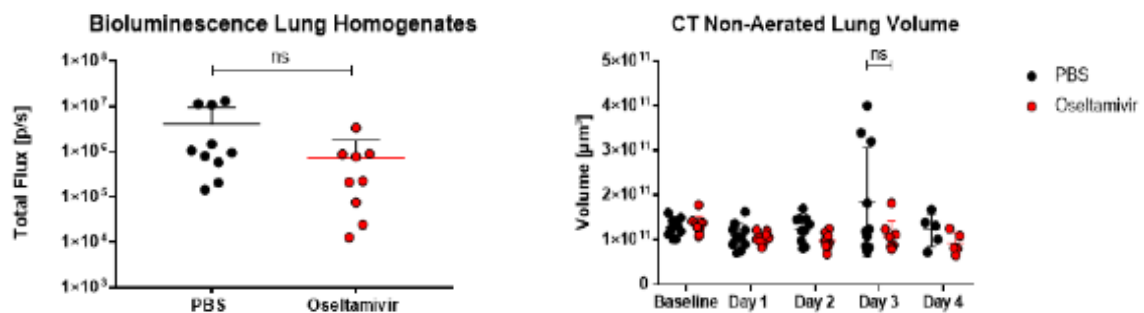


Figure S4. Oseltamivir treatment of immunosuppressed BALBc mice infected with *A. fumigatus*. Related

to Figure 3C-3D. BALB/c mice were treated with oseltamivir 10 mg/kg (n=10) or PBS (n=10), twice per day for 5 days, and were infected intranasally with *A. fumigatus*. Immunosuppression was induced by intraperitoneal administration of cyclophosphamide (150 mg/kg). Data are presented as mean \pm SEM.

Figure S5.

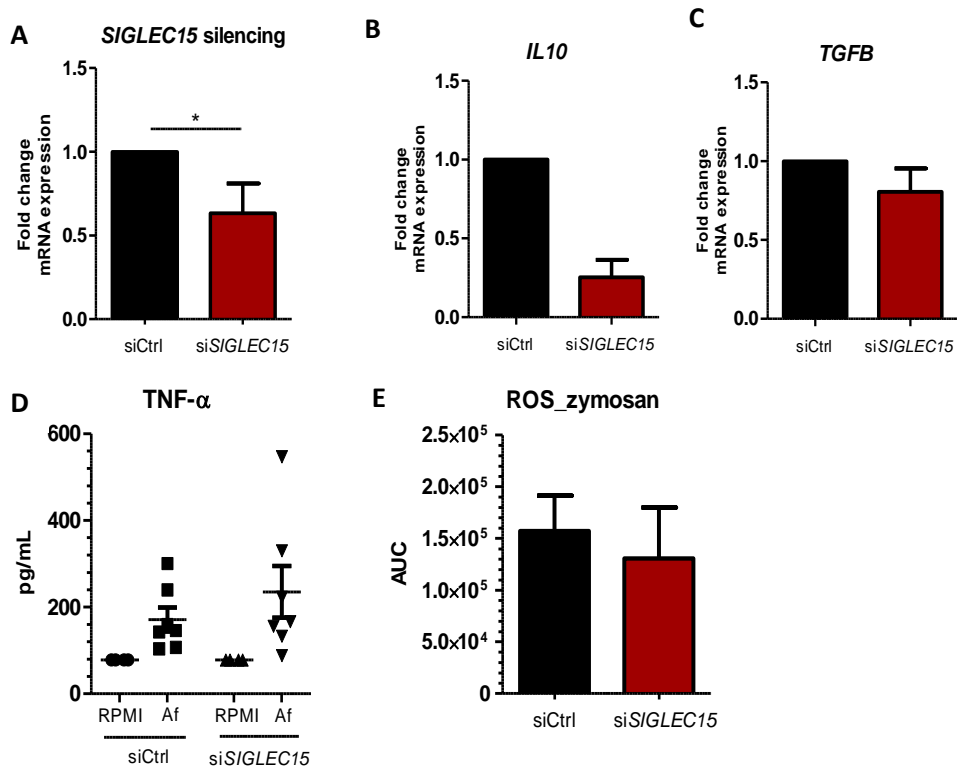


Figure S5. Silencing of *SIGLEC15* in PBMCs. Related to Figure 5E. (A) PBMCs were transfected with *SIGLEC15* siRNA (*siSIGLEC15*) or scrambled-control siRNA (*siCtrl*) for 24 hours prior to stimulation with *A. fumigatus* conidia (n=12). RNA were isolated and synthesized into cDNA, followed by qPCR. Relative *SIGLEC15* expression were calculated and presented as fold changes. Data are presented as mean \pm SEM. *p<0.05. (B-C) *IL10* and *TGFβ* expression were measured from *SIGLEC15*-silenced PBMCs (*siSIGLEC15*) and controls (*siCtrl*). (D-E) *TNF-α* concentration and zymosan-induced ROS production was measured from *SIGLEC15*-silenced PBMCs (*siSIGLEC15*) and controls (*siCtrl*).