



Lymphatic Collector *S. Aureus*

**Figure S1 Compromised pathogens transport and increased lymphatic permeability in aging mice.**

Representative (xy and yz) images of lymphatic collectors in the hind leg taken 1 hour after footpad injection with a TRITC-dextran sinus marker (red) and *Staphylococcus aureus* (cyan) bacteria in the footpad from 4 month (f) and 23 month-old mice (g). Bacteria in vessels highlighted with yellow arrows.

## Supplement Table S1

### Proteomic Analysis of Lymphatic Collectors harvested from 9 and 24 months old rats

#### Proteins

Collagen alpha-1(I) chain  
Collagen alpha-1(II) chain  
Collagen alpha-1(III) chain  
Collagen alpha-1(V) chain  
Collagen alpha-1(XI) chain  
Collagen alpha-1(XII) chain (Fragment)  
Collagen alpha-1(XXIII) chain  
Collagen alpha-1(XXVII) chain  
Collagen alpha-2(I) chain  
Fibronectin  
Fibronectin type III domain-containing protein 1  
Fibronectin type-III domain C1orf233 homolog  
Cartilage oligomeric matrix protein  
Extracellular matrix protein 1  
Non-muscle caldesmon  
Prelamin-A/C

Alpha-actinin-1  
Gelsolin  
Dynactin subunit 1  
Dynein assembly factor 1, axonemal  
Dynein heavy chain 1, axonemal  
Dynein heavy chain 7, axonemal

#### Accession Number

CO1A1\_RAT  
CO2A1\_RAT  
CO3A1\_RAT  
CO5A1\_RAT  
COBA1\_RAT  
COCA1\_RAT  
CONA1\_RAT  
CORA1\_RAT  
CO1A2\_RAT  
FINC\_RAT  
FNDC1\_RAT  
CA233\_RAT  
COMP\_RAT  
ECM1\_RAT  
CALD1\_RAT  
LMNA\_RAT

ACTN1\_RAT  
GELS\_RAT  
DCTN1\_RAT  
DAAF1\_RAT  
DYH1\_RAT  
DYH7\_RAT

<b>Troponin I, slow skeletal muscle</b>	TNNI1_RAT
<b>Troponin T, slow skeletal muscle</b>	TNNT1_RAT
<b>Unconventional myosin-Ib</b>	MYO1B_RAT
<b>Unconventional myosin-Ic</b>	MYO1C_RAT
<b>Unconventional myosin-I d</b>	MYO1D_RAT
<b>Myosin light chain 1/3, skeletal muscle isoform</b>	MYL1_RAT
<b>Myosin light chain 3</b>	MYL3_RAT
<b>Myosin light polypeptide 6</b>	MYL6_RAT
<b>Myosin-10</b>	MYH10_RAT
<b>Myosin-4</b>	MYH4_RAT
<b>Myosin-6</b>	MYH6_RAT
<b>Myosin-8 (Fragment)</b>	MYH8_RAT
<b>Myosin-9</b>	MYH9_RAT
<b>Myosin-binding protein H-like</b>	MBPHL_RAT
<b>Actin filament-associated protein 1</b>	AFAP1_RAT
<b>Actin, cardiac muscle 1</b>	ACTC_RAT
<b>Actin-like protein 7A</b>	ACL7A_RAT
<b>Actin-related protein 2/3 complex subunit 1A /5</b>	ARC1A_RAT
<b>Actin-related protein 3</b>	ARP3_RAT
<b>Afadin- and alpha-actinin-binding protein</b>	ADIP_RAT
<b>Afadin</b>	AFAD_RAT
<b>Myogenin</b>	MYOG_RAT
<b>Myomegalin</b>	MYOME_RAT
<b>Myotubularin</b>	MTM1_RAT
<b>Myotubularin-related protein 3</b>	MTMR3_RAT
<b>Angiomotin-like protein 2</b>	AMOL2_RAT
<b>Voltage-dependent T-type calcium channel subunit alpha-1G</b>	CAC1G_RAT
<b>Voltage-dependent L-type calcium channel subunit alpha-1C</b>	CAC1C_RAT
<b>Plasma membrane calcium-transporting ATPase 3</b>	AT2B3_RAT
<b>Plasma membrane calcium-transporting ATPase 1</b>	AT2B1_RAT
<b>Potassium channel subfamily K member 10</b>	KCNKA_RAT
<b>Potassium voltage-gated channel subfamily A member 6</b>	KCNA6_RAT

Potassium voltage-gated channel subfamily G member 2	KCNG2_RAT
Potassium voltage-gated channel subfamily KQT member 4	KCNQ4_RAT
Potassium-transporting ATPase alpha chain 2	AT12A_RAT
Sodium channel protein type 4 subunit alpha	SCN4A_RAT
Sodium channel protein type 5 subunit alpha	SCN5A_RAT
Sodium channel protein type 9 subunit alpha	SCN9A_RAT
Calcium-activated potassium channel subunit alpha-1	KCMA1_RAT
Alpha-1B adrenergic receptor	ADA1B_RAT
Alpha-2A adrenergic receptor	ADA2A_RAT
Beta-adrenergic receptor kinase 1	ARBK1_RAT
Agrin	AGRIN_RAT
Endothelial PAS domain-containing protein 1	EPAS1_RAT
Clusterin	CLUS_RAT
Clusterin-like protein 1	CLUL1_RAT
Hyaluronan and proteoglycan link protein 2	HPLN2_RAT
Hyaluronan synthase 2	HAS2_RAT
Ig-like V-type domain-containing protein FAM187A	F187A_RAT
Aggrecan core protein	PGCA_RAT
Versican core protein (Fragments)	CSPG2_RAT
Chondroitin sulfate proteoglycan 5	CSPG5_RAT
Chondroitin sulfate proteoglycan 4	CSPG4_RAT
Brevican core protein	PGCB_RAT
Alpha-2-HS-glycoprotein	FETUA_RAT
Versican core protein (Fragments)	CSPG2_RAT
Neurocan core protein	NCAN_RAT
Galectin-4	LEG4_RAT
Mucin-2 (Fragment)	MUC2_RAT
Amiloride-sensitive amine oxidase [copper-containing]	AOC1_RAT
Amiloride-sensitive sodium channel subunit alpha	SCNNA_RAT

<b>Anion exchange protein 2</b>	B3A2_RAT
<b>Anion exchange protein 3</b>	B3A3_RAT
<b>Cubilin</b>	CUBN_RAT
<b>Band 3 anion transport protein</b>	B3AT_RAT
<b>Chloride channel protein 2</b>	CLCN2_RAT
<b>Chloride anion exchanger</b>	S26A3_RAT
<b>Chloride channel protein 1</b>	CLCN1_RAT
<b>Chloride intracellular channel protein 6</b>	CLIC6_RAT
<b>Sodium/calcium exchanger 1</b>	NAC1_RAT
<b>Sodium/hydrogen exchanger 2</b>	SL9A2_RAT
<b>Sodium/hydrogen exchanger 5</b>	SL9A5_RAT
<b>Sodium-dependent phosphate transport protein 2B</b>	NPT2B_RAT
<b>Sodium-driven chloride bicarbonate exchanger</b>	S4A10_RAT
<b>Transient receptor potential cation channel subfamily M member 1</b>	TRPM1_RAT
<b>Electrogenic sodium bicarbonate cotransporter 1</b>	S4A4_RAT
<b>Electrogenic sodium bicarbonate cotransporter 4</b>	S4A5_RAT
<b>Nephrin</b>	NPHN_RAT
<b>Junction plakoglobin</b>	PLAK_RAT
<b>Basal cell adhesion molecule</b>	BCAM_RAT
<b>Cadherin EGF LAG seven-pass G-type receptor 2 (Fragment)</b>	CELR2_RAT
<b>Cadherin EGF LAG seven-pass G-type receptor 3</b>	CELR3_RAT
<b>Cadherin-1</b>	CADH1_RAT
<b>Cadherin-17</b>	CAD17_RAT
<b>Cadherin-2</b>	CADH2_RAT
<b>Cadherin-20</b>	CAD20_RAT
<b>Cadherin-23</b>	CAD23_RAT
<b>Cadherin-6</b>	CADH6_RAT
<b>Cadherin-7</b>	CADH7_RAT
<b>Integrin alpha-7</b>	ITA7_RAT
<b>Integrin alpha-D</b>	ITAD_RAT
<b>Integrin-linked kinase-associated serine/threonine phosphatase 2C</b>	ILKAP_RAT
<b>Integrin-linked protein kinase</b>	ILK_RAT

**Contactin-4**  
**Desmoglein-4**  
**Gap junction gamma-2 protein**  
**Gap junction alpha-4 protein**  
**Protocadherin alpha-4**  
**Protocadherin Fat 2**  
**Protocadherin Fat 3**

CNTN4\_RAT  
DSG4\_RAT  
CXG2\_RAT  
CXA4\_RAT  
PCDA4\_RAT  
FAT2\_RAT  
FAT3\_RAT

**Lymphatic Muscle Contraction**

**Extracellular Matrix Proteins**

**Adrenergic Receptors**

**Membrane Potential-related Ion Channel Proteins**

**Glycocalix-associated Proteins**

**Ion Channel-related proteins**

**Adherence Molecules**