

Table S1 | Sample information

| Species | common name | Sample number |
|-------------------------------|---------------------|---|
| <i>Phascolarctos cinereus</i> | koala | Pci-SN265 Pci-QMJ6480 Pci-582119 Pci-MCZ8574 Pci-MCZ12454 Pci-um3435 Pci-maex1738 |
| <i>Rattus norvegicus</i> | Norway rat | C0317 |
| <i>Rattus exulans</i> | polynesian rat | R4824 |
| <i>Mus cookii</i> | Cook's mouse | R5155, R5482 |
| <i>Mus cervicolor</i> | fawn-colored mouse | R4864, R5630 |
| <i>Mus fragilicauda</i> | sheath-tailed mouse | R5125 |
| <i>Mus caroli</i> | Ryukyu mouse | C0423, R5231 |
| <i>E. coli</i> | strain 536 | NA |
| <i>Phytophthora infestans</i> | Potato blight | RS2009P1 |
| <i>Architeuthis dux</i> | Giant squid | GS MTV Z9261 |
| <i>Columba livia</i> | Pigeon | GUI 14 |
| <i>Vitis vinifera</i> | Grape | Hatis-1 |

| Collection source | Date collected | Tissue type |
|--|-----------------------|--------------------|
| Schönbrunn Zoo Vienna | 2012 | Whole blood |
| Queensland Museum | 1938 | Skin |
| Stockholm Museum | 1911 | Skin |
| Museum of Comparative Zoology | 1904 | Skin |
| Museum of Comparative Zoology | 1904 | Skin |
| Bohusläns Museum | 1891 | Skin |
| Goteborg Museum | 1870-1891 | Skin |
| CERoPath, Institut des Sciences de l'Evolution, CNRS | 2008 | Whole blood |
| CERoPath, Institut des Sciences de l'Evolution, CNRS | 2008 | Whole blood |
| CERoPath, Institut des Sciences de l'Evolution, CNRS | 2008 | Whole blood |
| CERoPath, Institut des Sciences de l'Evolution, CNRS | 2008 | Whole blood |
| CERoPath, Institut des Sciences de l'Evolution, CNRS | 2008 | Whole blood |
| CERoPath, Institut des Sciences de l'Evolution, CNRS | 2008 | Whole blood |
| CERoPath, Institut des Sciences de l'Evolution, CNRS | 2008 | Human urine |
| Pennsylvania, USA | 2009 | Mycelium |
| Tasman Sea, near New Zealand | 1998 | Tentacle |
| Guimaraes, Portugal | 2011 | Muscle |
| Abovyan, Armenia | 2011 | Leaf |