**Supplementary figure 1.** Consensustree of the most parsimonious trees of leech-derived putative ADAM[TS] (A), manillase (B), bdellin (C), eglin c (D), destabilase (E), ficolin (F).

**Supplementary figure 2.** MAFFT-based alignment of antistasin-like proteins from *Limnobdella mexicana* and their respective archetypal anticoagulant. The archetypal sequence is shown on top of each alignment. A: putative destabilase I (DN5526) from *Limnobdella mexicana* aligned with the know sequence of destabilase I (AA96144), B: putative hirudin (DN24002\_c0\_g1\_i2) from *Limnobdella mexicana* aligned with the know sequence of hirudin (Q07558), C: putative hirudin (DN24002\_c0\_g1\_i1) from *Limnobdella mexicana* aligned with the know sequence of hirudin (Q07558), D: putative cystatin (DN1949) from *Limnobdella mexicana* aligned with the know sequence of cystatin (AAN28679), E: putative bdellin (DN24997) from *Limnobdella mexicana* aligned with the know sequence of hirudin (P09865), F: putative hirustasin (DN19378) from *Limnobdella mexicana* aligned with the know sequence of hirudin (P80302), G: putative antithrombin inhibitor (DN24002\_c0\_g1\_i2) from *Limnobdella mexicana* aligned with the know sequence of thrombin inhibitor from *Ophiophagus hannah* (ETE65985), E: putative eglin c (DN5213) from *Limnobdella mexicana* aligned with the know sequence of eglin c (095140A), I: putative saratin (DN20856) from *Limnobdella mexicana* aligned with the know sequence of saratin (2K13\_X), J: putative manillase (DN24272) from *Limnobdella mexicana* aligned with the know sequence of manillase (patent no. 2006 US 7.049.124 B1P09856).