CLAIMS:

1. A truncated PH20 hyaluronidase that consists of the sequence of amino acids set forth as amino acids 36-469, 36-470 or 36-471 of SEQ ID NO: 107, or contains amino acid substitutions in the sequence of amino acids set forth as amino acids 36-469, 36-470 or 36-471 of SEQ ID NO: 107, whereby the amino acid-substituted PH20 hyaluronidase consists of a sequence of amino acids that has at least ~~85%, 87%, 90%, 91%, 92%, 93%, 94%,~~ 95%~~, 96%, 97%, 98%, 99% or more~~ sequence identity with the sequence of amino acids set forth as amino acids 36-469, 36-470 or 36-471 of SEQ ID NO: 107, whereby the amino-acid substituted hyaluronidase activity at neutral pH of the PH20 hyaluronidase that consists of amino acid residues 36-469, 36-470 or 36-471 of SEQ ID NO: 107 ~~and exhibits catalytic activity at neutral pH~~.

2. The PH20 hyaluronidase of claim 1 that consists of the sequence of amino acids set forth as amino acids 36-469, 36-470 or 36-471 of SEQ ID NO: 107.

3. The PH20 of claim 1 or claim 2 that is N-glycosylated.

4. The PH20 of claim 3, wherein the PH20 is N-glycosylated and comprises at least an N-acetylglucosamine moiety linked to each of at least three asparagine (N) residues.

5. The PH20 of claim 4, wherein the three asparagine residues correspond to amino acid residues 235, 368 and 393 of SEQ ID NO: 107.

6. The PH20 of any of claims 1-5 that is modified by modification selected from among sialation, albumination, farnesylation, carboxylation, hydroxylation and phosphorylation.

7. The PH20 of any of claims 1-5 that is modified by a polymer.

8. The PH20 of claim 7, wherein the polymer is dextran or PEG.

9. The PH20 of any of claims 1-5, wherein the polypeptide is produced by expression in a host cell that does not bifucosylate the polypeptide.

10. The PH20 of any of claims 1-9 that is substantially purified or isolated.

32. The composition of claim 31, wherein the insulin is a fast-acting insulin ~~and the bisphosphonate is zoledronic acid~~.

33. Use of ~~an~~ a PH20 of any of claims 1-10 or a composition of any of claims 24-32 in the formulation of a medicament for treating a hyaluronan-associated disease or condition.

34. A pharmaceutical composition, comprising a polypeptide of any of claims 1-10 for use for treating a hyaluronan-associated disease or condition.

35. A pharmaceutical composition of any of claims 24-32 for use for treating a hyaluronan-associated disease or condition.

36. Use of a composition of any of claims 24-32 for the formulation of a medicament for treating an excess of glycosaminoglycans; for treating a tumor; for treating glycosaminoglycan accumulation in the brain; for treating a cardiovascular disorder; for treating an ophthalmic disorder; for treating pulmonary disease; for increasing penetration of chemotherapeutic agents into solid tumors; for treating cellulite; for treating a proliferative disorder; or for increasing bioavailability of drugs and other therapeutic agents.

37. The use of claim 36, wherein the proliferative disorder is benign prostatic hyperplasia.

38. A pharmaceutical composition of any of claims 24-32 for use in treating an excess of glycosaminoglycans; for treating a tumor; for treating glycosaminoglycan accumulation in the brain; for treating a cardiovascular disorder; for treating an ophthalmic disorder; for treating pulmonary disease; for increasing penetration of chemotherapeutic agents into solid tumors; for treating cellulite; for treating a proliferative disorder; or for increasing bioavailability of drugs and other therapeutic agents.

39. The pharmaceutical composition of claim 38, wherein the proliferative disorder is benign prostatic hyperplasia.