CLAIMS

1. A human antibody which binds human Tissue Factor, wherein said antibody comprises:

a) a VH region comprising the CDR1, 2 and 3 sequences of SEQ ID NO:14, 15 and 16 and a VL region comprising the CDR1, 2 and 3 sequences of SEQ ID NO:70, 71 and 72,
b) a VH region comprising the CDR1, 2 and 3 sequences of SEQ ID NO:54, 55 and 56 and a VL region comprising the CDR1, 2 and 3 sequences of SEQ ID NO:110, 111 and 112,
c) a VH region comprising the CDR1, 2 and 3 sequences of SEQ ID NO:2, 3 and 4 and a VL region comprising the CDR1, 2 and 3 sequences of SEQ ID NO:58, 59 and 60,
d) a VH region comprising the CDR1, 2 and 3 sequences of SEQ ID NO:42, 43 and 44 and a VL region comprising the CDR1, 2 and 3 sequences of SEQ ID NO:98, 99 and 100, or
e) a VH region comprising the CDR1, 2 and 3 sequences of SEQ ID NO:46, 47 and 48 and a VL region comprising the CDR1, 2 and 3 sequences of SEQ ID NO:102, 103 and 104.

2. The antibody of claim 1, wherein the antibody binds to the extracellular domain of Tissue Factor with an apparent affinity (EC_{50}) of 3 nM or less, such as 0.50 nM or less.

3. The antibody of any one of the preceding claims, wherein the antibody binds to mammalian cells expressing Tissue Factor, such as A431 cells transfected with a construct encoding Tissue Factor, preferably with an apparent affinity (EC_{50}) of 10 nM or less, e.g. 8 nM or less.

4. The antibody of any one of the preceding claims, wherein the antibody is capable of inducing antibody-dependent cellular cytotoxicity in A431 cells, preferably with an EC_{50} value of 2 nM or less, e.g. 1 nM or less, such as 0.7 nM or less or 0.3 nM or less.

5. The antibody of any one of the preceding claims, wherein the antibody is effective in inhibiting growth of established MDA-MB-231 tumors, and/or in inhibiting growth of established BxPC3 tumors.

6. The antibody of any one of the preceding claims, wherein the antibody inhibits tissue factor induced blood coagulation, preferably with a median inhibition concentration of less than 10 nM.

7. The antibody of any one of the preceding claims, wherein the antibody inhibits FVIIa binding to Tissue Factor, preferably with a maximum inhibition value of inhibition of more than 80%.

8. The antibody of any one of the preceding claims, wherein the antibody inhibits FVIIa-induced IL-8 release by MDA-MB-231 cells, preferably with a maximum inhibition value of inhibition of more than 50%.

9. The antibody of any one of the preceding claims, wherein the antibody inhibits conversion of FX into FXa by the TF/FVIIa complex, preferably by less than in the range of 1-30%.

10. The antibody of any one of the preceding claims, wherein said antibody inhibits FVIIa induced ERK phosphorylation, preferably with a median inhibition concentration of less than 10 nM.

11. The antibody of any one of the preceding claims, wherein the antibody is capable of inducing C3c and C4c deposition.

12. The antibody of any of the preceding claims, comprising:

a) a VH region comprising the sequence of SEQ ID NO:13 and a VL region comprising the sequence of SEQ ID NO:69,
b) a VH region comprising the sequence of SEQ ID NO:53 and a VL region comprising the sequence of SEQ ID NO:109,
c) a VH region comprising the sequence of SEQ ID NO:1 and a VL region comprising the sequence of SEQ ID NO:57,
d) a VH region comprising the sequence of SEQ ID NO:41 and a VL region comprising the sequence of SEQ ID NO: 97.
e) a VH region comprising the sequence of SEQ ID NO:45 and a VL region comprising the sequence of SEQ ID NO:101 or
f) a variant of any of said antibodies, wherein said variant preferably has at most 1,2 or 3 amino-acid modifications, more preferably amino-acid substitutions, such as conservative amino-acid substitutions in said sequences.

13. The antibody of any of the preceding claims, wherein the antibody has a kd of more than 1.00E-02 1/s, and an avidity of less than 5 nM.

14. The antibody of any of the preceding claims, wherein the antibody is effective in inhibiting growth of established BX-PC3 tumors.

15. The antibody of any one of the preceding claims, wherein the antibody is a full-length antibody, preferably an IgG1 antibody, in particular an IgG1,κ antibody.

16. The antibody of any one of the preceding claims, wherein the antibody is conjugated to another moiety, such as a cytotoxic moiety, a radioisotope or a drug.

17. The antibody of any of the preceding claims, wherein the antibody is a monovalent antibody.

18. The antibody of claim 17, wherein the monovalent antibody comprises

(i) the variable regions of an antibody of any of the preceding claims or an antigen binding part of the said region, and

(ii) a C_H region of an immunoglobulin or a fragment thereof comprising the C_H2 and C_H3 regions, wherein the C_H region or fragment thereof has been modified such that the region corresponding to the hinge region and, if the immunoglobulin is not an IgG4 subtype, other regions of the C_H region, such as the C_H3 region, do not comprise any amino acid residues, which are capable of forming disulfide bonds with an identical C_H region or other covalent or stable non-covalent inter-heavy chain bonds with an identical C_H region in the presence of polyclonal human IgG.

19. A bispecific molecule comprising an antibody of any of the preceding claims and a second binding specificity, such as a binding specificity for a human effector cell, a human Fc receptor or a B cell receptor.

20. A recombinant eukaryotic or prokaryotic host cell which produces an antibody as defined in any of the above claims.

21. A pharmaceutical composition comprising an antibody as defined in any of claims 1 to 18 or a bispecific molecule as defined in claim 19, and a pharmaceutically acceptable carrier.

22. The antibody as defined in any of claims 1 to 18 or a bispecific molecule as defined in claim 19 for use as a medicament.

23. The antibody or the bispecific molecule of claim 22 wherein the use is for the treatment of cancer.

24. The antibody or the bispecific molecule of claim 23, wherein the cancer is selected from the group consisting of: tumors of the central nervous system, head and neck cancer, lung cancer. breast cancer, esophageal cancer, stomach cancer, liver and biliary cancer, pancreatic cancer, colorectal cancer, bladder cancer, kidney cancer, prostate cancer, endometrial cancer, ovarian cancer, malignant melanoma, sarcoma, tumors of unknown primary origin, bone marrow cancer, acute lymphoblastic leukemia, chronic lymphoblastic leukemia and non-Hodgkin lymphoma, skin cancer, glioma, cancer of the brain, uterus, and rectum.

25. The antibody or the bispecific molecule of claim 23, wherein the medicament is for the treatment of cancer in combination with one or more further therapeutic agent, such as a chemotherapeutic agent.

26. Use of the antibody of any one of the claims 1-18 or the bispecific molecule of claim 19 for the manufacture of a medicament for treatment of cancer.

27. A method for producing an antibody of any of claims 1 to 18 said method comprising the steps of
a) culturing a host cell of claim 20, and
b) purifying the antibody from the culture media.

28. A diagnostic composition comprising an antibody as defined in any of claims 1 to 19.

29. A method for detecting the presence of Tissue Factor in a sample, comprising:
- contacting the sample with an antibody of any of claims 1 to 18 under conditions that allow for formation of a complex between the antibody or bispecific molecules and Tissue Factor; and
- analyzing whether a complex has been formed.

30. A kit for detecting the presence of Tissue Factor in a sample comprising
- an antibody of any of claims 1 to 18; and
- instructions for use of the kit.