***CLAIMS***

**1.** Met inhibitor for use in the treatment of a patient suffering from a tumor, said Met inhibitor being selected from:

i) an anti-Met monoclonal antibody,

ii) a genetically engineered antibody containing the complementarity determining regions (CDRs) of the anti-Met monoclonal antibody, and

iii) a fragment of (i) or (ii) containing the complementarity determining regions (CDRs) of the anti-Met monoclonal antibody, or combinations thereof,

wherein said Met inhibitor is able to induce down-regulation of the receptor encoded by the *MET* gene and reduces and/or abrogates patient's resistance to radiotherapy.

**2.** Nucleotide sequence encoding a Met inhibitor for use in the treatment of a patient suffering from a tumor, said Met inhibitor being selected from:

i) an anti-Met monoclonal antibody,

ii) a genetically engineered antibody containing the complementarity determining regions (CDRs) of the anti-Met monoclonal antibody, and

iii) a fragment of (i) or (ii) containing the complementarity determining regions (CDRs) of the anti-Met monoclonal antibody,

wherein said Met inhibitor is able to induce down-regulation of the receptor encoded by the *MET* gene and reduces and/or abrogates patient's resistance to radiotherapy.

**3.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to claim 1 or claim 2, wherein said Met inhibitor is selected from:

i) DN30 anti-Met monoclonal antibody,

ii) a genetically engineered antibody containing

the complementarity determining regions (CDRs) of DN30 anti-Met monoclonal antibody, said CDRs having the amino acid sequences set forth in SEQ ID NO.: 12 to 14 and 20 to 22, and

iii) a fragment of (i) or (ii) containing the complementarity determining regions (CDRs) of DN30 anti-Met monoclonal antibody, said CDRs having the amino acid sequences set forth in SEQ ID NO.: 12 to 14 and 20 to 22, or combinations thereof,

wherein said DN30 anti-Met monoclonal antibody is produced by the hybridoma cell line ICLC PD 05006.

**4.** Met inhibitor according to claim 1 or claim 3, wherein said Met inhibitor is for administration in the form of soluble protein by injection or infusion.

**5.** Nucleotide sequence encoding said Met inhibitor according to claim 2 or claim 3, wherein said nucleotide sequence encoding said Met inhibitor is for administration by means of a vector, wherein said vector is in form of a particle.

**6.** Nucleotide sequence encoding said Met inhibitor according to claim 5, wherein said vector is suitable for targeting tumor or tumor-associated cells.

**7.** Nucleotide sequence encoding said Met inhibitor according to claim 5 or claim 6, wherein said vector is for systemic or intra-tumor administration, preferably by injection.

**8.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to any one of the preceding claims, wherein said fragment is a Fab fragment, preferably a Fab fragment comprising at least one stabilizing molecule.

**9.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to claim 8, wherein said at least one stabilizing molecule is selected from polyethylenglycol, albumin binding domain, albumin.

**10.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to any one of the preceding claims, wherein said Met inhibitor and/or said nucleotide sequence encoding said Met inhibitor is for administration at least one week before subjecting said patient to radiotherapy.

**11.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to any one of the preceding claims, wherein said Met inhibitor and/or said nucleotide sequence encoding said Met inhibitor is for administration one day before subjecting said patient to radiotherapy.

**12.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to any one of the preceding claims, wherein said Met inhibitor and/or said nucleotide sequence encoding said Met inhibitor is for administration until at least one week, preferably 6 to 48 hours, after the end of radiotherapy.

**13.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to any one of the preceding claims, wherein said tumor is selected among a carcinoma, a musculoskeletal sarcoma, a soft tissue sarcoma, a hematopoietic malignancy, a brain tumor, melanoma, mesothelioma, Wilms' tumor.

***CLAIMS***

**1.** Met inhibitor for use in enhancing efficacy of radiotherapy, reducing and/or abrogating patient's resistance to said radiotherapy, in the treatment of a patient suffering from a tumor, said Met inhibitor being selected from:

i) DN30 anti-Met monoclonal antibody,

ii) a genetically engineered antibody containing the six complementarity determining regions (CDRs) of DN30 anti-Met monoclonal antibody, said CDRs having the amino acid sequences set forth in SEQ ID NO.: 12 to 14 and 20 to 22, and

iii) a fragment of (i) or (ii) containing the six complementarity determining regions (CDRs) of DN30 anti-Met monoclonal antibody, said CDRs having the amino acid sequences set forth in SEQ ID NO.: 12 to 14 and 20 to 22,

wherein said DN30 anti-Met monoclonal antibody is produced by the hybridoma cell line ICLC PD 05006, wherein said Met inhibitor is able to induce down-regulation of the receptor encoded by the *MET* gene and to counteract radiation-induced tumor invasiveness.

**2.** Nucleotide sequence encoding a Met inhibitor for use in enhancing efficacy of radiotherapy, reducing and/or abrogating patient's resistance to said radiotherapy, in the treatment of a patient suffering from a tumor, said Met inhibitor being selected from:

i) DN30 anti-Met monoclonal antibody,

ii) a genetically engineered antibody containing the six complementarity determining regions (CDRs) of DN30 anti-Met monoclonal antibody, said CDRs having the amino acid sequences set forth in SEQ ID NO.: 12 to 14 and 20 to 22, and

iii) a fragment of (i) or (ii) containing the six

complementarity determining regions (CDRs) of DN30 anti-Met monoclonal antibody, said CDRs having the amino acid sequences set forth in SEQ ID NO.: 12 to 14 and 20 to 22,

wherein said DN30 anti-Met monoclonal antibody is produced by the hybridoma cell line ICLC PD 05006, wherein said Met inhibitor is able to induce down-regulation of the receptor encoded by the *MET* gene and to counteract radiation-induced tumor invasiveness .

**3.** Met inhibitor according to claim 1, wherein said Met inhibitor is for administration in the form of soluble protein by injection or infusion.

**4.** Nucleotide sequence encoding said Met inhibitor according to claim 2, wherein said nucleotide sequence encoding said Met inhibitor is for administration by means of a vector, wherein said vector is in form of a particle.

**5.** Nucleotide sequence encoding said Met inhibitor according to claim 4, wherein said vector is suitable for targeting tumor or tumor-associated cells.

**6.** Nucleotide sequence encoding said Met inhibitor according to claim 4 or claim 5, wherein said vector is for systemic or intra-tumor administration, preferably by injection.

**7.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to any one of the preceding claims, wherein said fragment is a Fab fragment, preferably a Fab fragment comprising at least one stabilizing molecule.

**8.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to claim 7, wherein said at least one stabilizing molecule is selected from polyethylenglycol, albumin binding domain, albumin.

**9.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to any one of the preceding

claims, wherein said Met inhibitor and/or said nucleotide sequence encoding said Met inhibitor is for administration at least one week before subjecting said patient to radiotherapy.

**10.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to any one of the preceding claims, wherein said Met inhibitor and/or said nucleotide sequence encoding said Met inhibitor is for administration one day before subjecting said patient to radiotherapy.

**11.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to any one of the preceding claims, wherein said Met inhibitor and/or said nucleotide sequence encoding said Met inhibitor is for administration until at least one week, preferably 6 to 48 hours, after the end of radiotherapy.

**12.** Met inhibitor or nucleotide sequence encoding a Met inhibitor according to any one of the preceding claims, wherein said tumor is selected among a carcinoma, a musculoskeletal sarcoma, a soft tissue sarcoma, a hematopoietic malignancy, a brain tumor, melanoma, mesothelioma, Wilms' tumor.