presence of one or more FGFR mutants including at least the FGFR2 C383R; and treating the patient with an FGFR inhibitor if one or more FGFR mutants as described above are present in the sample; in particular treating the patient with an FGFR inhibitor if one or more FGFR mutants including at least the FGFR2 SNP C383R are present in the sample.

[0005] Disclosed herein are methods of treating cholangiocarcinoma in a patient harboring the FGFR2 SNP C383R, or harboring the fusion FGFR2-BICC1; or harboring the fusion FGFR2-CCAR1; or harboring the fusion FGFR2-KIAA1598; or harboring the fusion DTWD2-FGFR2; or harboring the fusion ESR2-FGFR2; or harboring the fusion FGFR2-MGEA5; or harboring the fusion FGFR2-SBNO2; or harboring the mutation FGFR2 C390>YS; or harboring the mutation FGFR2 N549K; in particular harboring FGFR2 C383R, comprising administering a FGFR inhibitor to said patient. The patient may comprise one or more further FGFR mutants.

[0006] Disclosed herein is a FGFR inhibitor for use in the treatment of cholangiocarcinoma in a patient harboring the FGFR2 SNP C383R, or harboring the fusion FGFR2-BICC1; or harboring the fusion FGFR2-CCAR1; or harboring the fusion FGFR2-KIAA1598; or harboring the fusion DTWD2-FGFR2; or harboring the fusion ESR2-FGFR2; or harboring the fusion FGFR2-MGEA5; or harboring the fusion FGFR2-SBNO2; or harboring the mutation FGFR2 C390>YS; or harboring the mutation FGFR2 N549K; in particular harboring FGFR2 C383R. In one aspect, there is provided a FGFR inhibitor for use in the treatment of cholangiocarcinoma in a patient harboring the FGFR2 SNP C383R. The patient may comprise one or more further FGFR mutants.

[0007] Disclosed herein is the use of a FGFR inhibitor in the manufacture of a medicament for the treatment of cholangiocarcinoma in a patient harboring the FGFR2 SNP C383R, or harboring the fusion FGFR2-BICC1; or harboring the fusion FGFR2-CCAR1; or harboring the fusion FGFR2-KIAA1598; or harboring the fusion DTWD2-FGFR2; or harboring the fusion ESR2-FGFR2; or harboring the fusion FGFR2-MGEA5; or harboring the fusion FGFR2-SBNO2; or harboring the mutation FGFR2 C390>YS; or harboring the mutation FGFR2 N549K; in particular harboring FGFR2 C383R. The patient may comprise one or more further FGFR mutants.

[0008] Disclosed herein is a FGFR inhibitor for use in the treatment of cholangiocarcinoma in a patient wherein the patient is identified as being responsive or likely to respond to the treatment with the FGFR inhibitor by evaluating a biological sample obtained from the patient for the presence of one or more FGFR mutants

more FGFR mutants including at least the mutation FGFR2 N549K; in particular for the presence of one or more FGFR mutants including at least the FGFR2 C383R, wherein the presence of one or more FGFR mutants including at least the FGFR2 SNP C383R; or one or more FGFR mutants including at least the fusion FGFR2-BICC1; or one or more FGFR mutants including at least the fusion FGFR2-CCAR1; or one or more FGFR mutants including at least the fusion FGFR2-KIAA1598; or one or more FGFR mutants including at least the fusion DTWD2-FGFR2; or one or more FGFR mutants including at least the fusion ESR2-FGFR2; or one or more FGFR mutants including at least the fusion FGFR2-MGEA5; or one or more FGFR mutants including at least the fusion FGFR2-SBNO2; or one or more FGFR mutants including at least the mutation FGFR2 C390>YS; or one or more FGFR mutants including at least the mutation FGFR2 N549K; in particular wherein the presence of one or more FGFR mutants including at least the FGFR2 C383R is detected.

[0009a] In another aspect, there is provided use of a FGFR inhibitor in the manufacture of a medicament for the treatment of cholangiocarcinoma in a patient wherein the patient is identified as being responsive to the treatment with the FGFR inhibitor by evaluating a biological sample obtained from the patient for the presence of one or more FGFR mutants including at least the FGFR2 SNP C383R, wherein the presence of one or more FGFR mutants including at least the FGFR2 SNP C383R is detected.

DETAILED DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

[0010] Reference to a particular numerical value includes at least that particular value, unless the context clearly dictates otherwise. When a range of values is expressed, another embodiment includes from the one particular value and/or to the other particular value. Further, reference to values stated in ranges include each and every value within that range. All ranges are inclusive and combinable.

[0011] The following abbreviations are used throughout the specification: FGFR (fibroblast growth factor receptor); FFPET (Formalin-Fixed Paraffin-Embedded Tissue); SNP (single nucleotide polymorphism).

[0012] As used herein, “treating” and like terms refer to reducing the severity and/or frequency of cancer symptoms, eliminating cancer symptoms and/or the underlying cause of said symptoms, reducing the frequency or likelihood of cancer symptoms and/or their underlying cause, and improving or remediating damage caused, directly or indirectly, by cancer.

[0013] “Biological samples” refers to any sample from a patient in which cancerous cells can be obtained and detection of a FGFR mutant is possible. Suitable biological samples include, but are not limited to, blood, lymph fluid, bone marrow, a solid tumor sample, or any combination thereof. In some embodiments, the biological sample can be FFPET.

CLAIMS

1. A FGFR inhibitor for use in the treatment of cholangiocarcinoma in a patient harboring the FGFR2 SNP C383R.

2. Use of a FGFR inhibitor in the manufacture of a medicament for the treatment of cholangiocarcinoma in a patient wherein the patient is identified as being responsive to the treatment with the FGFR inhibitor by evaluating a biological sample obtained from the patient for the presence of one or more FGFR mutants including at least the FGFR2 SNP C383R, wherein the presence of one or more FGFR mutants including at least the FGFR2 SNP C383R is detected.

3. The FGFR inhibitor for use according to claim 1 or the use according to claim 2 wherein the FGFR inhibitor is erdafitinib.

4. The FGFR inhibitor for use or the use according to claim 3 wherein erdafitinib is to be administered at a dose of 10 mg.

5. The FGFR inhibitor for use or the use according to claim 4 wherein the dose of 10 mg is to be administered intermittently.

6. The FGFR inhibitor for use or the use according to claim 5 wherein erdafitinib is to be administered at a dose of 10 mg intermittently 7days on/7 days off.

7. The FGFR inhibitor for use or the use according to claim 3 wherein erdafitinib is to be administered at a dose of 8 mg once daily.