

CLAIMS

1. A method of testing for pancreatic ductal adenocarcinoma comprising determining the level of expression or concentration of each of LYVE1, REG1 and TFF1 in a urine sample obtained from a patient, in which an increase in one or more of the biomarkers in a test sample compared to a control sample from a healthy patient indicates the presence of pancreatic ductal adenocarcinoma.
2. A method according to Claim 1, in which the REG1 protein is REG1A and/or REG1B.
3. A method according to Claim 1 or 2, in which the determining step is carried out using a binding molecule or binding molecules specific for the protein or proteins whose level of expression or concentration is being determined.
4. A method according to Claim 3 in which the binding molecule is an antibody or an antibody fragment, a protein, or an aptamer.
5. A method according to any preceding claim in which the sample is from a human.
6. A method according to any preceding claim, in which the pancreatic ductal adenocarcinoma is stage I or stage II pancreatic ductal adenocarcinoma.
7. A method according to any preceding claim, in which the method is capable of distinguishing between stage I pancreatic ductal adenocarcinoma (PDAC) and a healthy patient, between stage I pancreatic ductal adenocarcinoma (PDAC) and chronic pancreatitis (CP), or between stage I pancreatic ductal adenocarcinoma (PDAC) and a later stage of pancreatic ductal adenocarcinoma (PDAC).
8. A method according to any preceding claim, further comprising the step of comparing the level of expression or concentration of one or more miRNAs with a reference.
9. A method according to Claim 8, in which the reference is a biological sample from a healthy patient.
10. A method according to any preceding claim, in which the biological sample is from a patient having or suspected of having pancreatic ductal adenocarcinoma (PDAC).
11. A method according to any preceding claim, further comprising determining the level of expression or concentration of CA19.9 protein.

12. Use of a combination of each of LYVE1, REG1 and TFF1 proteins in a method of testing for pancreatic ductal adenocarcinoma, in which an increase in one or more of the biomarkers in a urine sample obtained from a patient compared to a control sample from a healthy patient indicates the presence of pancreatic ductal adenocarcinoma.
- 5 13. Use of the combination of proteins according to Claim 12, in which the REG1 protein is REG1A and/or REG1B.
14. Use of the combination of proteins according to Claim 12 or 13, in which the level of expression or concentration is measured using a binding molecule or binding molecules specific for the protein or proteins being analysed.
- 10 15. Use of the combination of proteins according to Claim 14, in which the binding molecule is an antibody or an antibody fragment, a protein, or an aptamer.
16. A method according to any of Claims 1 to 11 or use of the combination of proteins according to any of Claims 12 to 15, in which the pancreatic ductal adenocarcinoma is stage I or stage II pancreatic ductal adenocarcinoma.