What is claimed is:

1. An imaging agent composition comprising an isolated polypeptide comprising ~~SEQ. ID No. 1,~~ SEQ. ID. No 2 ~~or a conservative variant thereof~~, conjugated with an $Al^{18}F$-NOTA-chelator to form an $Al^{18}F$-NOTA-chelator conjugated polypeptide wherein the isolated $Al^{18}F$-NOTA-chelator conjugated polypeptide binds specifically to HER2 or variants thereof.

2. A method of making an imaging agent composition according to claim 1 comprising (i) providing an isolated polypeptide comprising ~~SEQ. ID No. 1,~~ SEQ. ID No. 2 ~~or a conservative variant thereof~~; (ii) reacting the polypeptide with a NOTA-chelator to form a NOTA-chelator conjugated polypeptide; and (iii) reacting the NOTA-chelator conjugated polypeptide with an $Al^{18}F$ moiety to form a $Al^{18}F$-NOTA-chelator conjugated polypeptide.

~~3. A method of preparing an ^{18}F-NOTA-chelator comprising reacting a NOTA-chelator with a source of $Al^{18}F$.~~

~~4. A method according to claim 3, wherein said NOTA-chelator comprises a NOTA chelate moiety and a linker.~~

~~5~~3. A method of making an imaging agent composition according to claim 1 comprising (i) providing the isolated polypeptide comprising ~~SEQ.ID No. 1,~~ SEQ.ID No. 2~~, or a conservative variant thereof~~; (ii) reacting the polypeptide with a NOTA-chelator, wherein the NOTA-chelator comprises a NOTA chelate moiety and a linker, to form a NOTA-chelator conjugated polypeptide; and (iii) reacting the NOTA-chelator conjugated polypeptide with an ^{18}F moiety or a source of ^{18}F.

~~6~~4. A pharmaceutical composition comprising an imaging agent composition according to claim 1 and a pharmaceutically acceptable carrier.