73. The composition of any one of claims 65-72, wherein the composition does not comprise t-butanol.

74. The composition of any one of claims 65-73, wherein the radiochemical purity of [^{18}F]DCFPyL ranges from about 95% to about 100%.

75. A kit comprising the composition of any one of claims 65-74.

76. A kit comprising a DCFPyL precursor and phosphoric acid.

77. A kit comprising a DCFPyL precursor and tetrabutylammonium hydrogen carbonate.

78. The kit of any one of claims 75-77 does not comprise one or more cryptands.

79. The kit of claim 78, wherein the cryptand is Kryptofix®.

80. The kit of any one of claims 75-79, further comprising [^{18}F]fluoride ion.

81. A method of imaging comprising contacting cells, organs or tissues with a composition of any one of claims 65-74.

82. Use of the composition of any one of claims 65-73 in the manufacture of a medicament for the treatment of cancer, wherein the medicament is to be administered to a subject.

83. The composition of any one of claims 65-73 for use in imaging, wherein the composition is to be administered to a subject.

84. An apparatus comprising a radiofluorination module (RFM) or an automated radiochemistry synthesizer as described in any one of claims 4-49.

85. An apparatus comprising a radiofluorination module (RFM) or an automated radiochemistry synthesizer in which the method of any one of claims 1-64 can be performed.