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(54) Title: METHOD FOR PRODUCING DIVERSE LIBRARIES OF ENCODED POLYMERS

(57) Abstract: Described are aminoacyl tRNA analogues which comprise a tRNA, and an amino acid which acts as an acceptor and donor substrate for ribosome-directed translation, thus, incorporating unusual monomers into non-standard polymers by the action of ribosomes. Also described are methods for producing such tRNA analogues; non-standard polymers; libraries of encoded polymers; methods of screening the libraries; and target members and their uses. A key advantage of synthesizing non-standard polymer libraries of the present invention with aminoacyl tRNA analogues is that large libraries of high complexity can be easily made and functional library members (e.g. novel drugs) readily identified.



nal Application No PCT/US2004/009648

Relevant to claim No.

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12Q1/68 C07H21/00 C07K9/00 C12P21/00 CO7K14/82

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Category °

Minimum documentation searched (classification system followed by classification symbols)

C12Q C07H C07K C12P

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

Citation of document, with indication, where appropriate, of the relevant passages

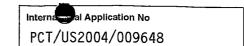
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