

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:

NEW ASSIGNMENT

NATURE OF CONVEYANCE:

ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
David Zhang	03/31/2008
Andrew Turberfield	05/08/2008
Erik Winfree	03/31/2008

RECEIVING PARTY DATA

Name:	California Institute of Technology
Street Address:	1200 E. California Boulevard, Mail Stop 201-85
City:	Pasadena
State/Country:	CALIFORNIA
Postal Code:	91125

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12025652

CORRESPONDENCE DATA

Fax Number: (949)852-0004

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Address Line 4: Irvine, CALIFORNIA 92623

ATTORNEY DOCKET NUMBER:

C9:00825

NAME OF SUBMITTER:

John W. Peck

Total Attachments: 7

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PATENT

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## ASSIGNMENT

WHEREAS, WE, David Zhang, Andrew J. Turberfield and Erik Winfree made certain new and useful inventions and improvements for which an application for Letters Patent of the United States entitled ENGINEERED TOEHOLD REACTIONS AND NETWORKS filed February 4, 2008 and having been assigned Application No. 12/025,652;

WHEREAS, California Institute of Technology, a corporation organized and existing under and by virtue of the laws of the State of California, and having an office and place of business at 1200 East California boulevard, Mail Stop 201-85, Pasadena, California 91125 (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefore;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and I do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, I do hereby agree that I and my executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to me relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, I covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me.

Docket No: C9:00825

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IN TESTIMONY WHEREOF, I have hereunto set my hand this 31 day of March,  
2008.



David Zhang  
Address: 13301 West 130<sup>th</sup> Street  
Overland Park, Kansas 66213

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ )

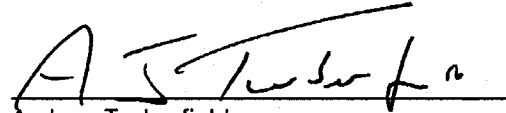
On \_\_\_\_\_, before me \_\_\_\_\_, Notary Public,  
personally appeared David Zhang personally known to me (or proved to me on the basis  
of satisfactory evidence) to be the person whose name is subscribed to the within  
instrument and acknowledged to me that he executed the same in his authorized  
capacity, and that by his signature on the instrument the person, or the entity upon  
behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
Signature of Notary

\*\*\*\*\*

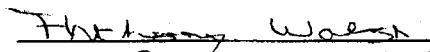
IN TESTIMONY WHEREOF, I have hereunto set my hand this 8th day of May,  
2008.



Andrew Turberfield

Address: 15 Blenheim Drive  
Oxford, OX1 3PU, United Kingdom

WITNESS:

  
Name: ANTHONY WALSH

\*\*\*\*\*

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IN TESTIMONY WHEREOF, I have hereunto set my hand this 31 day of March,  
2008.



Erik Winfree  
1167 E. Alta Loma Drive  
Altadena, California 91001

STATE OF  
COUNTY OF

)  
)

On \_\_\_\_\_, before me \_\_\_\_\_, Notary Public,  
personally appeared **Erik Winfree** personally known to me (or proved to me on the  
basis of satisfactory evidence) to be the person whose name is subscribed to the within  
instrument and acknowledged to me that he executed the same in his authorized  
capacity, and that by his signature on the instrument the person, or the entity upon  
behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
Signature of Notary

\*\*\*\*\*

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : David Zhang et al. Confirmation No. 1672  
Application No. : 12/025,652  
Filed : February 4, 2008  
Title : ENGINEERED TOEHOLD REACTIONS AND NETWORKS  
Grp./Div. : 1645  
Examiner : Unassigned  
Docket No. : C9:00825

### POWER OF ATTORNEY BY ASSIGNEE

California Institute of Technology, a California non-profit organization, having a place of business at 1200 East California Blvd., Mail Stop 201-85, Pasadena, California 91125, (Assignee) is assignee of the entire right, title and interest throughout the world, by reason of an Assignment to the Assignee of an invention known as ENGINEERED TOEHOLD REACTIONS AND NETWORKS (Attorney Docket No. C9:00825), which is disclosed and claimed in a patent application of the same title by the inventors David Zhand, Andres J. Turberfield and Erik Winfree having Application Serial No. 12/025,652. The Assignment of this application to California Institute of Technology is being submitted for recordation concurrently with this Power of Attorney.

The Assignee hereby appoints the U.S. attorneys associated with **CUSTOMER NUMBER 71897** as principal attorneys with the power to appoint associate attorneys to prosecute this application and any continuation, divisional, continuation-in-part, or reissue application thereof, and to transact all business in the U.S. Patent and Trademark Office connected therewith. The Assignee hereby grants said attorneys the power to insert on this Power of Attorney any further identification that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The authority under this Power of Attorney of each person named shall automatically terminate and be revoked upon such person ceasing to be a member or associate of or of counsel to that law firm.




Application No. 12/025,652  
POWER OF ATTORNEY BY ASSIGNEE

SEND CORRESPONDENCE TO: Customer Number: 71897  
KAUTH, POMEROY, PECK & BAILEY LLP  
P.O. Box 19152  
Irvine, CA 92623  
DIRECT TELEPHONE CALLS TO: John W. Peck, 949.852.0000

The undersigned has reviewed the title documents described above and hereby certifies that to the best of his/her knowledge and belief, title of the subject matter of this patent application is in California Institute of Technology.

CALIFORNIA INSTITUTE OF TECHNOLOGY

JUN 10 2008  
Date \_\_\_\_\_

By  \_\_\_\_\_  
Adam Cochran  
Intellectual Property Counsel