

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

|  |                             |
|--|-----------------------------|
| SUBMISSION TYPE:   | NEW ASSIGNMENT              |
| NATURE OF CONVEYANCE:  | ASSIGNMENT                  |
| CONVEYING PARTY DATA   |                             |
| Name   | Execution Date              |
| Sharon Avkin-Nachum  | 05/08/2012                  |
| RECEIVING PARTY DATA   |                             |
| Name:  | Quark Pharmaceuticals, Inc. |
| Street Address:  | 6501 Dumbarton Circle       |
| City:  | Fremont                     |
| State/Country:   | CALIFORNIA                  |
| Postal Code:   | 94555                       |
| PROPERTY NUMBERS Total: 1  |                             |
| Property Type  | Number                      |
| Application Number:  | 13511111                    |
| CORRESPONDENCE DATA  |                             |
| Fax Number:  | (212)391-0525               |
| Phone:   | 212-278-0400                |
| Email:   | jwhite@cooperdunham.com     |
| <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>                      |                             |
| Correspondent Name:  | Cooper & Dunham LLP         |
| Address Line 1:  | 30 Rockefeller Plaza        |
| Address Line 4:  | New York, NEW YORK 10112    |
| ATTORNEY DOCKET NUMBER:  | 2094/84023/JPW/GC           |
| NAME OF SUBMITTER:   | Hindy Dym                   |
| Total Attachments: 2<br>source=120523_2094_84023_Assignment_GC_Page_1#page1.tif<br>source=120523_2094_84023_Assignment_GC_Page_2#page1.tif |                             |

CH \$40.00 13511111

***Assignment of Non-Provisional Application***

*In consideration of One Dollar (\$1.00), and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned,*  
Sharon AVKIN-NACHUM of 4 Hakramim Street, 74054 Nes Zionna, Israel,

***Hereby sell, assign and transfer to*** Quark Pharmaceuticals, Inc., a corporation of the State of California, having a place of business at 6501 Dumbarton Circle, Fremont, California 94555, *in the County of Alameda and State of California , its successors, assigns and legal representatives, the entire right, title and interest for all countries, in and to any and all inventions which are disclosed and claimed, and any and all inventions which are disclosed but not claimed, in the application for United States Patent, which has been executed by the undersigned on* May 8, 2012 *and is entitled*

**SIRNA COMPOUNDS COMPRISING TERMINAL SUBSTITUTIONS**  
(U.S. Serial No. 13/511,111 , § 371 national stage of PCT International Application No. PCT/US2010/058123, filed November 25, 2010, claiming the benefit of U.S. Provisional Applications Nos. 61/372,072, filed August 9, 2010; 61/295,721, filed January 17, 2010; and 61/264,668, filed November 26, 2009)

*and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other applications for U.S. Letters Patent or other related property rights in any and all foreign countries which have been or shall be filed on any of said inventions disclosed in said application; and in and to all original and reissued patents or related foreign documents which have been or shall be issued on said inventions;*

***Authorize and request the Commissioner for Patents of the United States to issue to said Assignee, the corporation above named, its successors, assigns and legal representatives, in accordance with this assignment, any and all United States Letters Patent on said inventions or any of them disclosed in said application;***

*Agree that said Assignee may apply for and receive foreign Letters Patent or rights of any other kind for said inventions, or any of them; and may claim, in applications for said foreign Letters Patent or other rights, the priority of the aforesaid United States patent application under the provisions of the International Convention of 1883 and later modifications thereof, under the Patent Cooperation Treaty, under the European Patent Convention or under any other available international agreement; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this assignment, the undersigned or the undersigned's executors or administrators will, for the United States and all foreign countries, execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications or other documents on any and all said inventions; execute all rightful oaths, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns and representatives, all facts known and documents available to the undersigned relating to said inventions and the history thereof; testify in all legal proceedings; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said inventions and for vesting title to said inventions and all applications for patents or related foreign rights and all patents on said inventions, in said Assignee, its successors, assigns and legal representatives; and*

*Covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.*

Date: MAY 08, 2012  
 Witness: A. ABRAMOER [signature]  
8/3 SHABAZI ST., [printed name]  
ASHDOD, ISRAEL [address]

Sharon AVKIN-NACHUM [LS]