## DATE: November 10, 2017

TO: MIAX PEARL Members

FROM: MIAX PEARL Regulatory Department

RE: Market for Underlying Security Used for Openings on MIAX PEARL for Newly Listed Option Classes Effective Monday, November 13, 2017

The following symbols will start trading on MIAX PEARL beginning Monday, November 13, 2017, and, as set forth in MIAX PEARL Rule 503(a)(3), MIAX PEARL shall use the exchange identified below as the "market for the underlying security" for purposes of Openings on the Exchange.

| Option Symbol | Security Name | Underlying Symbol | Exchange for Opening |
| :---: | :---: | :---: | :---: |
| ACTA | Actua Corporation | ACTA | NASDAQ |
| ADMS | Adamas Pharmaceuticals, Inc. | ADMS | NASDAQ |
| AFTY | CSOP FTSE China A50 ETF | AFTY | NYSE Arca |
| AHL | Aspen Insurance Holdings Limited | AHL | NYSE |
| AIMT | Aimmune Therapeutics, Inc. | AIMT | NASDAQ |
| ALOG | Analogic Corporation | ALOG | NASDAQ |
| ANGO | AngioDynamics, Inc. | ANGO | NASDAQ |
| ATUS | Altice USA, Inc. | ATUS | NYSE |
| AVEO | AVEO Pharmaceuticals, Inc. | AVEO | NASDAQ |
| BAS | Basic Energy Services, Inc. | BAS | NYSE |
| BECN | Beacon Roofing Supply, Inc. | BECN | NASDAQ |
| BGNE | BeiGene, Ltd. | BGNE | NASDAQ |
| BHF | Brighthouse Financial, Inc. | BHF | NASDAQ |
| BHGE | Baker Hughes, a GE company | BHGE | NYSE |
| BKD | Brookdale Senior Living Inc. | BKD | NYSE |
| BKF | iShares MSCI BRIC ETF | BKF | NYSE Arca |
| BPMC | Blueprint Medicines Corp. | BPMC | NASDAQ |
| BTU | Peabody Energy Corporation | BTU | NYSE |
| CARS | Cars.com Inc. | CARS | NYSE |
| CCC | Calgon Carbon Corporation | CCC | NYSE |
| CLDR | Cloudera, Inc. | CLDR | NYSE |
| CLLS | Cellectis S.A. | CLLS | NASDAQ |
| COL | Rockwell Collins, Inc. | COL | NYSE |
| CUTR | Cutera, Inc. | CUTR | NASDAQ |


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| :---: | :---: | :---: | :---: |
| CVNA | Carvana Co. | CVNA | NYSE |
| DBVT | DBV Technologies S.A. | DBVT | NASDAQ |
| DIOD | Diodes Incorporated | DIOD | NASDAQ |
| FCSC | Fibrocell Science Inc | FCSC | NASDAQ |
| FM | iShares MSCI Frontier 100 ETF | FM | NYSE Arca |
| FND | Floor \& Decor Holdings, Inc. | FND | NYSE |
| FWONA | Formula One Group | FWONA | NASDAQ |
| GLDD | Great Lakes Dredge \& Dock Corporation | GLDD | NASDAQ |
| GLOB | Globant S.A. | GLOB | NYSE |
| GLP | Global Partners LP | GLP | NYSE |
| GLYC | GlycoMimetics, Inc. | GLYC | NASDAQ |
| GROW | U.S. Global Investors, Inc. | GROW | NASDAQ |
| GSAT | Globalstar, Inc. | GSAT | NYSE American |
| GXG | Global X MSCI Colombia ETF | GXG | NYSE Arca |
| HE | Hawaiian Electric Industries, Inc. | HE | NYSE |
| HIIQ | Health Insurance Innovations, Inc. | HIIQ | NASDAQ |
| HOMB | Home BancShares, Inc. | HOMB | NASDAQ |
| HOME | At Home Group Inc. | HOME | NYSE |
| HSNI | HSN, Inc. | HSNI | NASDAQ |
| IWP | iShares Russell Midcap Growth ETF | IWP | NYSE Arca |
| IWS | iShares Russell Mid-cap Value ETF | IWS | NYSE Arca |
| KL | Kirkland Lake Gold Ltd. | KL | NYSE |
| KOPN | Kopin Corporation | KOPN | NASDAQ |
| LBRDK | Liberty Broadband Corporation | LBRDK | NASDAQ |
| LOXO | Loxo Oncology, Inc. | LOXO | NASDAQ |
| LVNTA | Liberty Ventures | LVNTA | NASDAQ |
| MANT | ManTech International Corporation | MANT | NASDAQ |
| MCRI | Monarch Casino \& Resort, Inc. | MCRI | NASDAQ |
| MNRO | Monro, Inc. | MNRO | NASDAQ |
| MRTX | Mirati Therapeutics, Inc. | MRTX | NASDAQ |
| MTRX | Matrix Service Company | MTRX | NASDAQ |
| NEOS | Neos Therapeutics, Inc. | NEOS | NASDAQ |
| NRE | NorthStar Realty Europe Corp. | NRE | NYSE |
| OKTA | Okta, Inc. | OKTA | NASDAQ |
| OTIC | Otonomy, Inc. | OTIC | NASDAQ |
| PLPM | Planet Payment, Inc. | PLPM | NASDAQ |
| POWI | Power Integrations, Inc. | POWI | NASDAQ |


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| :---: | :---: | :---: | :---: |
| PRFT | Perficient, Inc. | PRFT | NASDAQ |
| PRO | PROS Holdings, Inc. | PRO | NYSE |
| QDEL | Quidel Corporation | QDEL | NASDAQ |
| RDFN | Redfin Corporation | RDFN | NASDAQ |
| RE | Everest Re Group, Ltd. | RE | NYSE |
| REG | Regency Centers Corporation | REG | NYSE |
| REMX | VanEck Vectors Rare Earth/Strat MtIs ETF | REMX | NYSE Arca |
| RGNX | REGENXBIO Inc. | RGNX | NASDAQ |
| RIC | Richmont Mines, Inc. | RIC | NYSE |
| RICE | Rice Energy Inc. | RICE | NYSE |
| RLJ | RLJ Lodging Trust | RLJ | NYSE |
| RNR | RenaissanceRe Holdings Ltd. | RNR | NYSE |
| RUSHA | Rush Enterprises, Inc. | RUSHA | NASDAQ |
| RXDX | Ignyta, Inc. | RXDX | NASDAQ |
| SFR | Starwood Waypoint Homes | SFR | NYSE |
| STRL | Sterling Construction Company Inc. | STRL | NASDAQ |
| TCF | TCF Financial Corporation | TCF | NYSE |
| TEF | Telefonica SA | TEF | NYSE |
| TNXP | Tonix Pharmaceuticals Holding Corp. | TNXP | NASDAQ |
| TTD | The Trade Desk, Inc. | TTD | NASDAQ |
| UMH | UMH Properties, Inc. | UMH | NYSE |
| UPL | Ultra Petroleum Corp. | UPL | NASDAQ |
| VNOM | Viper Energy Partners LP | VNOM | NASDAQ |
| VR | Validus Holdings, Ltd. | VR | NYSE |
| VREX | Varex Imaging Corporation | VREX | NASDAQ |
| VSTM | Verastem, Inc. | VSTM | NASDAQ |
| VXUS | Vanguard Total International Stock ETF | VXUS | NASDAQ |
| VYGR | Voyager Therapeutics, Inc. | VYGR | NASDAQ |
| WBT | Welbilt, Inc. | WBT | NYSE |
| WMS | Advanced Drainage Systems, Inc. | WMS | NYSE |
| WRLD | World Acceptance Corporation | WRLD | NASDAQ |
| XCO | EXCO Resources, Inc. | XCO | NYSE |
| ZN | Zion Oil \& Gas Inc. | ZN | NASDAQ |

Please direct questions to the Regulatory Department at Regulatory@MIAXOptions.com or (609) 8977309.

