



The option class listed below will begin trading on the MIAX Emerald Options Exchange at the start of trading on **Monday, April 20, 2020**. All option classes on MIAX Emerald have an allocation style of Pro-Rata and billing style of Maker-Taker.

| Security Symbol | Security Name | Option Class | Penny Pilot | Exchange for Opening | Closing Time | PLMM | Cloud |
|-----------------|--|--------------|-------------|----------------------|--------------|-------------------------|-------|
| ADMA | ADMA Biologics Inc. | ADMA | No | NASDAQ | 4:00 | Susquehanna Securities | 1 |
| ADPT | Adaptive Biotechnologies Corporation | ADPT | No | NASDAQ | 4:00 | Citadel Securities, LLC | 1 |
| AGTC | Applied Genetic Technologies Corporation | AGTC | No | NASDAQ | 4:00 | Susquehanna Securities | 1 |
| ALLK | Allakos, Inc. | ALLK | No | NASDAQ | 4:00 | Susquehanna Securities | 1 |
| APLS | Apellis Pharmaceuticals, Inc. | APLS | No | NASDAQ | 4:00 | Susquehanna Securities | 1 |
| APTO | Aptose Biosciences Inc. | APTO | No | NASDAQ | 4:00 | Susquehanna Securities | 1 |
| ARGX | argenx SE | ARGX | No | NASDAQ | 4:00 | Susquehanna Securities | 1 |
| ATEX | Anterix Inc. | ATEX | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 1 |
| ATRC | Atricure Inc. | ATRC | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 1 |
| AXNX | Axonics Modulation Technologies, Inc. | AXNX | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 1 |
| AZZ | Azz Inc. | AZZ | No | NYSE | 4:00 | Wolverine Trading, LLC | 1 |
| BRO | Brown & Brown, Inc. | BRO | No | NYSE | 4:00 | Wolverine Trading, LLC | 2 |
| BW | Babcock & Wilcox Enterprises Inc. | BW | No | NYSE | 4:00 | Wolverine Trading, LLC | 2 |
| CCC | Clarivate Analytics PLC | CCC | No | NYSE | 4:00 | Wolverine Trading, LLC | 2 |
| CDAY | Ceridian HCM Holding Inc. | CDAY | No | NYSE | 4:00 | Wolverine Trading, LLC | 2 |
| CDLX | Cardlytics Inc. | CDLX | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 2 |
| CEIX | Consol Energy Inc. | CEIX | No | NYSE | 4:00 | Citadel Securities, LLC | 2 |
| CHNG | Change Healthcare Inc. | CHNG | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 2 |
| CPLP | Capital Product Partners L.P. | CPLP | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 2 |
| DDOG | Datadog, Inc. | DDOG | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 3 |
| DEAC | Diamond Eagle Acquisition Corp. | DEAC | No | NASDAQ | 4:00 | Citadel Securities, LLC | 3 |

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| DNLI | Denali Therapeutics Inc. | DNLI | No | NASDAQ | 4:00 | Citadel Securities, LLC | 3 |
| DOYU | Douyu International Holdings Ltd. | DOYU | No | NASDAQ | 4:00 | Susquehanna Securities | 3 |
| DT | Dynatrace, Inc. | DT | No | NYSE | 4:00 | Wolverine Trading, LLC | 3 |
| DTIL | Precision Biosciences, Inc. | DTIL | No | NASDAQ | 4:00 | Susquehanna Securities | 3 |
| ETRN | Equitrans Midstream Corp. | ETRN | No | NYSE | 4:00 | Susquehanna Securities | 3 |
| EVER | Everquote, Inc. | EVER | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 3 |
| FG | FGL Holdings | FG | No | NYSE | 4:00 | Susquehanna Securities | 3 |
| GCI | Gannett Co. Inc. | GCI | No | NYSE | 4:00 | Wolverine Trading, LLC | 4 |
| GO | Grocery Outlet Holding Corp. | GO | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 4 |
| GOSS | Gossamer Bio Inc. | GOSS | No | NASDAQ | 4:00 | Susquehanna Securities | 4 |
| GSX | Gsx Techedu, Inc. | GSX | No | NYSE | 4:00 | Wolverine Trading, LLC | 4 |
| GTX | Garrett Motion Inc. | GTX | No | NYSE | 4:00 | Wolverine Trading, LLC | 4 |
| HELE | Helen Of Troy Ltd. | HELE | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 4 |
| HROW | Harrow Health, Inc. | HROW | No | NASDAQ | 4:00 | Citadel Securities, LLC | 4 |
| IHRT | iHeartMedia, Inc. | IHRT | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 5 |
| INSP | Inspire Medical Systems Inc. | INSP | No | NYSE | 4:00 | Wolverine Trading, LLC | 5 |
| JETS | U.S. Global Jets ETF | JETS | No | NYSE ARCA | 4:00 | Wolverine Trading, LLC | 5 |
| KALA | Kala Pharmaceuticals Inc. | KALA | No | NASDAQ | 4:00 | Susquehanna Securities | 5 |
| LTM | Latam Airlines Group S.A. | LTM | No | NYSE | 4:00 | Citadel Securities, LLC | 5 |
| LVGO | Livongo Health, Inc. | LVGO | No | NASDAQ | 4:00 | Susquehanna Securities | 5 |
| MDLA | Medallia, Inc. | MDLA | No | NYSE | 4:00 | Wolverine Trading, LLC | 6 |
| MLNX | Mellanox Technologies Ltd. | MLNX | No | NASDAQ | 4:00 | Susquehanna Securities | 6 |
| MR | Montage Resources Corporation | MR | No | NYSE | 4:00 | Wolverine Trading, LLC | 6 |
| MYOV | Myovant Sciences Ltd. | MYOV | No | NYSE | 4:00 | Susquehanna Securities | 6 |
| NMRK | Newmark Group Inc. | NMRK | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 6 |
| NVST | Envista Holdings Corp. | NVST | No | NYSE | 4:00 | Wolverine Trading, LLC | 6 |

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| OGI | Organigram Holdings Inc. | OGI | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 7 |
| OR | Osisko Gold Royalties Limited | OR | No | NYSE | 4:00 | Citadel Securities, LLC | 7 |
| PFNX | Pfenex Inc. | PFNX | No | AMEX | 4:00 | Citadel Securities, LLC | 7 |
| PGNY | Progyny Inc | PGNY | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 7 |
| PINC | Premier Inc. | PINC | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 7 |
| POL | Polyone Corporation | POL | No | NYSE | 4:00 | Wolverine Trading, LLC | 7 |
| PRVB | Provention Bio Inc. | PRVB | No | NASDAQ | 4:00 | Citadel Securities, LLC | 7 |
| RADA | Rada Electronic Industries Ltd. | RADA | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 7 |
| RCM | R1 RCM Inc. | RCM | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 7 |
| REAL | Realreal, Inc. | REAL | No | NASDAQ | 4:00 | Susquehanna Securities | 7 |
| RETA | Reata Pharmaceuticals, Inc. | RETA | No | NASDAQ | 4:00 | Susquehanna Securities | 7 |
| REZI | Resideo Technologies Inc. | REZI | No | NYSE | 4:00 | Wolverine Trading, LLC | 7 |
| SAVA | Cassava Sciences, Inc. | SAVA | No | NASDAQ | 4:00 | Susquehanna Securities | 8 |
| SCOR | Comscore Inc. | SCOR | No | NASDAQ | 4:00 | Citadel Securities, LLC | 8 |
| SILJ | ETMFG Prime Junior Silver Miners ETF | SILJ | No | NYSE ARCA | 4:00 | Susquehanna Securities | 8 |
| SLDB | Soild Biosciences Inc. | SLDB | No | NASDAQ | 4:00 | Susquehanna Securities | 8 |
| SMPL | The Simply Good Foods Company | SMPL | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 8 |
| SNCR | Synchronoss Technologies, Inc. | SNCR | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 8 |
| SPTM | SPDR Portfolio S&P 1500 Composite Stock Market ETF | SPTM | No | NYSE ARCA | 4:00 | Wolverine Trading, LLC | 8 |
| SUI | Sun Communities, Inc. | SUI | No | NYSE | 4:00 | Wolverine Trading, LLC | 8 |
| TLYS | Tilly's Inc. | TLYS | No | NYSE | 4:00 | Citadel Securities, LLC | 8 |
| TMHC | Taylor Morrison Home Corporation | TMHC | No | NYSE | 4:00 | Wolverine Trading, LLC | 8 |
| TRHC | Tabula Rasa Healthcare, Inc. | TRHC | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 8 |
| TRIL | Trillium Therapeutics Inc. | TRIL | No | NASDAQ | 4:00 | Susquehanna Securities | 8 |
| TUFN | Tufin Software Technologies Ltd. | TUFN | No | NYSE | 4:00 | Wolverine Trading, LLC | 8 |

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| TXG | 10x Genomics, Inc. | TXG | No | NASDAQ | 4:00 | Susquehanna Securities | 8 |
| USX | US Xpress Enterprises Inc. | USX | No | NYSE | 4:00 | Citadel Securities, LLC | 9 |
| VBTX | Veritex Holdings, Inc. | VBTX | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 9 |
| VERU | Veru Inc. | VERU | No | NASDAQ | 4:00 | Susquehanna Securities | 9 |
| VET | Vermilion Energy Inc. | VET | No | NYSE | 4:00 | Susquehanna Securities | 9 |
| WDFC | Wd-40 Company | WDFC | No | NASDAQ | 4:00 | Wolverine Trading, LLC | 10 |
| WVE | Wave Life Sciences Ltd | WVE | No | NASDAQ | 4:00 | Susquehanna Securities | 10 |
| ZIXI | Zix Corporation | ZIXI | No | NASDAQ | 4:00 | Susquehanna Securities | 11 |
| ZYME | Zymeworks Inc. | ZYME | No | NYSE | 4:00 | Susquehanna Securities | 11 |

Please contact MIAX Options Listings with any questions.

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