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# INDXX ADVANCED LIFE SCIENCES & SMART HEALTHCARE THEMATIC INDEX

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# 1. INDXX ADVANCED LIFE SCIENCES & SMART HEALTHCARE THEMATIC INDEX

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## 1.1 INDEX DESCRIPTION

The Indxx Advanced Life Sciences & Smart Healthcare Thematic Index is designed to measure the performance of companies involved in the Advanced Life Sciences & Smart Healthcare sector, as defined by Indxx.

The index has a base date of June 30, 2014 with an initial value of 1,000.

The index is currently available in the following versions:

- Price Return
- Total Return
- Net Total Return

## 1.2 CREATION OF MASTER LIST

### 1.2.1 Initial Universe

To be eligible for inclusion in the Initial Universe, securities must have:

- Their primary listing in Developed and Emerging Markets as defined by Indxx in its 'Country Classification and Investability Requirements' document.
- A minimum market capitalization of \$500 million.
- A 6-month average daily turnover greater than or equal to \$1million for emerging markets and greater than or equal to \$2 million for developed markets.
- Traded for at least 90% of the total trading days over the last 6 months on their respective stock exchanges, and at least 90% of the total trading days over the last 3 months for an Initial Public Offering ("IPO") security.

### 1.2.2 Free Float

All securities must have a minimum free float equivalent to 10% of shares outstanding.

### 1.2.3 Maximum Price

Securities trading at a price of \$10,000 or above are ineligible for inclusion in the universe. This rule is not applicable for existing constituents. Existing constituents shall remain in the universe irrespective of their stock price.

### 1.2.4 Security Type

The following security types are eligible for inclusion:

- Common Stock
- ADR
- GDR

### 1.2.5 Share Classes

If multiple share classes exist for a company, the following procedure is followed:

- Local shares are given preference over all other share classes.

## 1.3 SECURITY SELECTION PROCESS

Based on extensive research, Indxx has defined 'Advanced Lifesciences & Smart Healthcare' as being comprised of the following sub-themes:

Robotics	Companies in this category support the healthcare industry by providing robot companions, surgical robots, pharmabiotics, disinfectant robots or exoskeletons.
Nanotechnology	Companies under this category provide nanotechnology to the healthcare industry. Nanoparticles enable physicians to target drugs at the source of the disease, which increases efficiency and minimizes side effects.
Genome Sequencing	Companies in this category provide services, such as nutrigenomics, the cross-field of nutrition, dietetics and genomics.
Healthcare Trackers	These companies offer products like advanced wearables that help in collecting and tracking health metrics like heart rate and blood pressure, including fitness trackers that collect data related to workouts.
Biological Engineering	Companies in this category apply the concepts and methods of biology to solve real-world problems related to life sciences. Some of the applications include: Medical imaging, Biomaterials and Orthopedic Engineering.
Bioinformatics	These companies use IT in biotechnology for data storage, data warehousing and analyzing DNA sequences. This acts as an essential tool for drug development and discovery.
Neuroscience	Companies that are engaged in the multidisciplinary branch of biology, that deals with the anatomy, biochemistry, molecular biology, and physiology of neurons and neural circuits. The overall market includes technologies for brain imaging, neurology medicines, and cognitive training.
Medical Devices	Companies under this category designs, manufactures, and sells various innovative medical, surgical, and diagnostic devices for the treatment of various diseases such as peripheral vascular disease, vascular access, and for use in oncology and surgical treatments.

These sub-themes are comprised of companies in the following FactSet Industries:

Packaged Software	Household/Personal Care	Miscellaneous Commercial Services
Biotechnology	Medical Distributors	Pharmaceuticals: Generic
Medical Specialties	Pharmaceuticals: Other	Services to the Health Industry
Pharmaceuticals: Major	Semiconductors	Other Consumer Specialties

The industries and sub-themes identified through this research-based approach are subject to change at every annual reconstitution.

Companies are classified into one of the following three types based on revenue:

- **Pure Play:**

Companies from the Master List that cumulatively derive revenue greater than or equal to 50% from the above sub-themes are considered as 'pure-play' advanced life sciences & smart healthcare companies. These companies are included in the 'Selection List' for the index.

- **Quasi Play:**

Companies with diversified revenue streams that cumulatively generate at least 20% (but less than 50%) of their revenue from the above sub-themes are considered as 'quasi-play' "Advanced Life Sciences & Smart Healthcare "and Environment" companies. These companies are also included in the 'Selection List' for the index.

- **Marginal:**

Companies with diversified revenue streams that generate 0-20% of their revenue from the above-mentioned sub-themes or that have a distinct business unit focused on "Advanced Life Sciences & Smart Healthcare" are considered as 'marginal' companies. These companies are also included in the 'Selection List' for the index.

## 1.4 FINAL COMPOSITION

From the Selection List:

- All 'pure-play' companies shall be considered for the final portfolio.

## 1.5 WEIGHTING

The index is weighted as follows:

- Components are weighted based on their free float security-level market capitalization.
- A single security cap of 4.5% is applied.
- The excess weight is redistributed across all other uncapped components in the index on a proportional basis to get the final weights.

## 1.6 BUFFER RULES

Buffer Rules are employed to reduce Portfolio Turnover. The following buffer rules apply:

### 1.6.1 Market Capitalization

A constituent shall continue to be included in the Initial Universe if its market capitalization is greater than or equal to 80% of the previously defined market capitalization limit.

### 1.6.1 Liquidity

A constituent shall continue to be included in the Initial Universe if its 6-month ADTV is greater than or equal to 70% of the previously defined liquidity limit.

## 1.7 RECONSTITUTION AND REBALANCING RULES

- The index follows an annual reconstitution and rebalancing schedule. The new portfolio becomes effective at the close of last trading day of June each year. This day is called the 'Effective day'.
- The security selection and index creation process starts at the close of 17 trading days before the effective day, called the 'Selection Day.' The selection list is created using the data as of this day.
- Weights are calculated at the close of the sixth trading day prior to the Effective Day. Index Shares are frozen using weights as of this day.

## 1.8 IPO REVIEW

- To effectively capture IPOs, the index constituents will be reviewed on a quarterly basis in September, December and March each year. New additions to the portfolio become effective on the close of last trading day of every quarter. This day is called the 'Review Effective Day'.
- The IPO identification process starts at the close of the nearest Friday falling at least one month before the effective day. This day is called the 'Review Selection Day'.
- Potential inclusions in the mid-term review must meet the market capitalization criteria as of the review selection date day.
- The liquidity criteria should be greater than the threshold as defined as of the review selection date.
- The securities must have traded on 90% of the eligible trading days for the past 3 months from the Review Selection Day.
- Any new addition to the portfolio at the time of review will be added as per the weighting scheme mentioned in the methodology, calculated at the close of seventh trading day prior to the Review Effective Day. The new addition's Index Shares will be frozen using weights as of this day.

## 1.9 Backtest

While running the NTR backtest, the tax rate for the United States holdings is considered as 0%.

## 1.10 CORPORATE ACTIONS

Indxx standard Corporate Actions for market cap weighted indices apply. The corporate action guidebook is present in the Announcements section of our website, under 'Index Documents'.

## 2. DISCLAIMER

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