



The Power of Precision

## Customer case study

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*“Invest in instrumentation that enhances your capabilities and empowers you to achieve your scientific goals”*



### Project goal

To create bio-analytical methods for fixed dose combinations that involve multiple analytes with diverse physico-chemical properties and entail challenging detection limits and large linear dynamic ranges.

### Biggest challenges right now

- Sensitive methods to correctly define pharmacokinetic parameters
- Variable calibration curve range required for multiple strengths products
- Achieving high throughput by simultaneous analysis of multiple analytes with diverse physico-chemical properties from fixed dose combination products

### Solution

- Sensitivity gains afforded by the SCIEX Triple Quad™ 6500 LC-MS/MS System for achieving challenging detection limits when sample volume is limited
- New IonDrive™ High Energy Detector technology of SCIEX Triple Quad™ 6500 System helps to have wide dynamic range method
- Fast polarity switching in SCIEX Triple Quad™ 6500 system helps to analyze analyte of diverse polarity with lesser run time

### Outcomes of research

- Developed several methods for CNS products and Irritable Bowel Syndrome (IBS) of pg/mL level for accurate depiction of pharmacokinetic parameters
- Successfully developed methods for many fix dose combination of anti-diabetic products
- Developed method for anti-malarial fix dose combination product for studies conducted on pediatric patients

*“SCIEX team is always focused on addressing customer concerns and increasing satisfaction. SCIEX customer support services are excellent.”*

### Organization

Sun Pharma is the largest pharmaceutical company in India with around 2,000 research scientists working in multiple R&D centers equipped with cutting-edge technologies for developing generics, APIs, NDDS and NCEs.

### Goal

Sun Pharma's business is broadly categorized into four segments: Active Pharmaceutical Ingredients (API), International Branded Generics, Indian Branded Generics and US Generics. Sun Pharma works towards generic product development, manufacturing, clinical and preclinical studies leading to regulatory filing globally.

### SCIEX products

- API 3200™ LC-MS/MS System
- API 4000™ LC-MS/MS System
- 4000 QTRAP® LC-MS/MS System
- SCIEX Triple Quad™ 6500 LC-MS/MS System
- Analyst® Software 1.6.3