



Ion Torrent Delivers Tenfold Higher Throughput, Fastest Workflow and Now Ion 314 Chip for Just \$99—All in First Six Months

CARLSBAD, Calif. – July 11, 2011 – Ion Torrent, a unit of [Life Technologies Corporation](#) (NASDAQ: LIFE), today announced that it is shipping its new 100 Mb Ion 316™ chip, which has tenfold more throughput than the original Ion 314™ chip, and that its 1 Gb Ion 318™ chip will be available in the fourth quarter. These three chips will deliver an unprecedented hundredfold increase in throughput in a single year, demonstrating the tremendous scalability of [semiconductor sequencing](#).

Ion Torrent also announced that it has the fastest workflow in the industry, at under eight hours, a threefold improvement since the company's launch [six months](#) ago. Scientists have responded to these advances in sequencing speed, scalability and simplicity by making the Ion Personal Genome Machine™ system the fastest selling next-generation sequencer with placements in more than 40 countries. For more information, view our short [video](#).

“Semiconductor technology has transformed every industry it has touched, from computing to photography to music, and now it's transforming the life sciences,” said Ion Torrent President and COO Gregg Fergus. “In just the [six months](#) since Ion Torrent launched the Ion Personal Genome Machine sequencer, we have made huge advances and that will continue in the second half of the year when we'll increase read lengths to 200 base pairs and throughput by another tenfold.”

Value

The scalability of Ion semiconductor sequencing offers exceptional value as well as performance. The Ion 314™ chip is now available for just \$99, which we believe will enable the sequencing community to develop novel methods and applications. Ion is able to lower the price because of the significant sales volume generated by the Ion 314™ chip and the economies of scale inherent in semiconductor manufacturing. Additionally, each of the three new chips will work on the same Ion PGM™ sequencer, enabling users to buy only as much throughput as they need, from 10 Mb to 1 Gb.

Speed

The Ion Torrent single-day workflow—from library preparation to data analysis—is now the fastest in the next-generation sequencing industry, at eight to nine hours depending on the read length required. Ion has reduced the time by about threefold in just six months thanks to [three key breakthroughs](#):

- 1) The new Ion Xpress™ Fragment Library Kit, shipping this week, offers a novel enzymatic fragmentation process that has reduced the library preparation time to 3.5 hours, 60 percent faster than six months ago.
- 2) The Ion OneTouch™ System for template preparation, shipping later this quarter, now features a new component to automate enrichment, the Ion OneTouch™ ES. The entire template preparation process is fully automated and can be completed in three hours, 70 percent faster than six months ago.
- 3) Finally, the new Torrent Suite 1.4 analysis software has cut chip analysis time in half to 60 minutes for the Ion 316™ chip and just 30 minutes for the Ion 314™ chip, while also delivering a significant improvement in accuracy.

Accuracy

The Ion PGM™ system's accuracy has improved by an order of magnitude since it was launched six months ago. Ion Torrent has capitalized on the inherent accuracy of its simple sequencing chemistry, achieving more signal, better signal processing and improved base calling. Accuracy improved so rapidly in part because the Ion PGM™ sequencer's two-hour run times enabled Ion Torrent's R&D teams to quickly test and refine their ideas. Improvements in accuracy will help Ion Torrent reach 200 bp reads in the second half of this year and 400 bp reads in 2012.

More New Products

Additional new products now available include an early access version of the Ion DNA Barcoding 1-16 Kit for multiplexed sequencing analysis of up to 16 samples on a single chip which drastically reduces cost per sample and increases sample throughput. The Ion Library Quantitation Kit, a highly sensitive TaqMan®-based solution providing rapid and accurate femtomolar-level quantitation of Ion Torrent DNA libraries using qPCR, and the Ion Sphere™ Control Kit for template bead quality control using the Qubit® 2.0 Fluorometer also join the [new product portfolio](#).

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About Life Technologies (www.lifetechnologies.com)

[Life Technologies Corporation](#) (NASDAQ: LIFE) is a global biotechnology company dedicated to improving the human condition. Our systems, consumables and services enable researchers to accelerate scientific and medical advancements that make life even better. Life Technologies customers do their work across the biological spectrum, working to advance the fields of discovery and translational research, molecular medicine, stem cell-based therapies, food safety and animal health, and 21st century forensics. The company manufactures both molecular diagnostic and research use only products. Life Technologies' industry-leading brands are found in nearly every life sciences lab in the world and include innovative instrument systems under the Applied Biosystems and Ion Torrent names, as well as the broadest range of reagents with its Invitrogen, GIBCO, Ambion, Molecular Probes and TaqMan® products. Life Technologies had sales of \$3.6 billion in 2010, has a workforce of approximately 11,000 people, has a presence in approximately 160 countries and possesses one of the largest intellectual property estates in the

life sciences industry, with approximately 3,900 patents and exclusive licenses. For more information on how we are making a difference, please visit our website:
<http://www.lifetechnologies.com>.

Life Technologies' Safe Harbor Statement

This press release includes forward-looking statements about our anticipated results that involve risks and uncertainties. Some of the information contained in this press release, including, but not limited to, statements as to industry trends and Life Technologies' plans, objectives, expectations and strategy for its business, contains forward-looking statements that are subject to risks and uncertainties that could cause actual results or events to differ materially from those expressed or implied by such forward-looking statements. Any statements that are not statements of historical fact are forward-looking statements. When used, the words "believe," "plan," "intend," "anticipate," "target," "estimate," "expect" and the like, and/or future tense or conditional constructions ("will," "may," "could," "should," etc.), or similar expressions, identify certain of these forward-looking statements. Important factors which could cause actual results to differ materially from those in the forward-looking statements are detailed in filings made by Life Technologies with the Securities and Exchange Commission. Life Technologies undertakes no obligation to update or revise any such forward-looking statements to reflect subsequent events or circumstances.

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