

Reconstitution

Russell 3000® Index - Deletions

Company	Symbol	Sector
ACELRX PHARMACEUTICALS	ACRX	Health Care
ADVERUM BIOTECH INC	ADVM	Health Care
AEVI GENOMIC MEDICINE	GNMX	Health Care
AGILE THERAPEUTICS INC	AGRX	Health Care
ALJ REGIONAL HOLDINGS	ALJJ	Producer Durables
ALLIANCE ONE INTL INC	AOI	Consumer Staples
ALTIMMUNE INC	ALT	Health Care
AMERICAN SUPERCONDUCTOR	AMSC	Producer Durables
AMPIO PHARMACEUTICALS	AMPE	Health Care
ANTHERA PHARMACEUTICALS	ANTH	Health Care
APPLIED GENETIC TECH	AGTC	Health Care
APTEVO THERAPEUTICS INC	APVO	Health Care
AQUABOUTY TECHNOLOGIES	AQB	Consumer Staples
ARGOS THERAPEUTICS	ARGS	Health Care
ARROWHEAD PHARMACEUTICAL	ARWR	Health Care
ATLANTICA YIELD PLC	ABY	Utilities
AUTOBYTEL INC	ABTL	Technology
AVINGER INC	AVGR	Health Care
AVON PRODUCTS INC	AVP	Consumer Discretionary
AXSOME THERAPEUTICS INC	AXSM	Health Care
BIO PATH HOLDINGS INC	BPTH	Health Care
BLACK BOX CORP	BBOX	Technology
CELADON GROUP INC	CGI	Producer Durables
CELLULAR BIOMEDICINE GRP	CBMG	Health Care
CHROMADEX CORP	CDXC	Materials & Processing
CIDARA THERAPEUTICS INC	CDTX	Health Care
COBALT INTL ENERGY	CIE	Energy
CYTRX CORP	CYTR	Health Care
DAWSON GEOPHYSICAL CO	DWSN	Energy
DESTINATION XL GRP INC	DXLG	Consumer Discretionary
DIMENSION THERAPEUTICS	DMTX	Health Care
EGALET CORPORATION	EGLT	Health Care
EIGER BIOPHARMACEUTICALS	EIGR	Health Care
ENDOCYTE INC	ECYT	Health Care
ERIN ENERGY CORPORATION	ERN	Energy
EXCO RESOURCES INC	XCO	Energy
FERROGLOBE PLC	GSM	Materials & Processing
FLEX PHARMA INC	FLKS	Health Care
FUELCELL ENERGY INC	FCEL	Energy
FULGENT GENETICS INC	FLGT	Health Care
GALENA BIOPHARMA INC	GALE	Health Care
GLOBANT SA	GLOB	Technology
GLYCOMIMETICS INC	GLYC	Health Care
HENNESSY ADVISORS INC	HNNA	Financial Services
HORNBECK OFFSHORE SVCS	HOS	Energy
INFINITY PHARMACEUTICALS	INFI	Health Care
INOTEK PHARMACEUTICALS	ITEK	Health Care
INVENTURE FOODS INC	SNAK	Consumer Staples
INVIVO THERAPEUTICS HLDG	NVIV	Health Care

Reconstitution

Russell 3000® Index - Deletions

Company	Symbol	Sector
IRADIMED CORPORATION	IRMD	Health Care
IRIDEX CORP	IRIX	Health Care
JAKKS PACIFIC INC	JAKK	Consumer Discretionary
JAMBA INC	JMBA	Consumer Discretionary
KADMON HOLDINGS INC	KDMN	Health Care
KONA GRILL INC	KONA	Consumer Discretionary
LIFEVANTAGE CORP	LFVN	Consumer Staples
LIPOCINE INC	LPCN	Health Care
LUBYS INC	LUB	Consumer Discretionary
MANNING & NAPIER INC	MN	Financial Services
MANNKIND CORP	MNKD	Health Care
MARCHEX INC	MCHX	Consumer Discretionary
MIRATI THERAPEUTICS INC	MRTX	Health Care
MYOVANT SCIENCES LTD	MYOV	Health Care
NII HOLDINGS INC	NIHD	Utilities
NOBILIS HEALTH CORP	HLTH	Health Care
NORTHERN OIL & GAS INC	NOG	Energy
NOVAN INC	NOVN	Health Care
NOVUS THERAPEUTICS INC	NVUS	Health Care
NUMEREX CORP	NMRX	Technology
ONCOMED PHARMACEUTICALS	OMED	Health Care
OPHTHOTEC CORP	OPHT	Health Care
OVASCIENCE INC	OVAS	Health Care
P A M TRANSN SVCS INC	PTSI	Producer Durables
PATRIOT NATIONAL INC	PN	Producer Durables
PFENEX INC	PFNX	Health Care
PFSWEB INC	PFSW	Producer Durables
PROTEOSTASIS THERA INC	PTI	Health Care
QUORUM HEALTH CORP	QHC	Health Care
REAL INDUSTRY INC	RELY	Financial Services
REGULUS THERAPEUTICS	RGLS	Health Care
SAPIENS INTL CORP NV	SPNS	Technology
SEADRILL LIMITED	SDRL	Energy
SEARS HOMETOWN OUTLET	SHOS	Consumer Discretionary
SECOND SIGHT MEDICAL	EYES	Health Care
SENSEONICS HOLDINGS INC	SENS	Health Care
SILICOM LTD	SILC	Technology
SORRENTO THERAPEUTICS	SRNE	Health Care
STAGE STORES INC	SSI	Consumer Discretionary
STEIN MART INC	SMRT	Consumer Discretionary
STRATTEC SEC CORP	STRT	Consumer Discretionary
SYNTHETIC BIOLOGICS INC	SYN	Health Care
T2 BIOSYSTEMS INC	TTOO	Health Care
TANDEM DIABETES CARE INC	TNDM	Health Care
TERRAVIA HOLDINGS	TVIA	Energy
THOMSON REUTERS CORP	TRI	Financial Services
TIDEWATER INC	TDW	Producer Durables
TITAN PHARMACEUTICALS	TTNP	Health Care
TRANSENTERIX INC	TRXC	Health Care

Reconstitution

Russell 3000® Index - Deletions

Company	Symbol	Sector
TROVAGENE INC	TROV	Health Care
TUESDAY MORNING CORP	TUES	Consumer Discretionary
UNIQUE FABRICATING INC	UFAB	Consumer Discretionary
URBAN ONE INC	UONEK	Consumer Discretionary
USA TRUCK INC	USAK	Producer Durables
VINCE HOLDING CORP	VNCE	Consumer Discretionary
VITAL THERAPIES INC	VTL	Health Care
WALTER INV MGMT CORP	WAC	Financial Services
WINS FINANCE HOLDINGS	WINS	Financial Services
WORKHORSE GROUP INC	WKHS	Producer Durables
ZAFGEN INC	ZFGN	Health Care



Reconstitution

For more information about our indexes, please visit ftserussell.com.

© 2017 London Stock Exchange Group plc and its applicable group undertakings (the "LSE Group"). The LSE Group includes (1) FTSE International Limited ("FTSE"), (2) Frank Russell Company ("Russell"), (3) FTSE TMX Global Debt Capital Markets Inc. and FTSE TMX Global Debt Capital Markets Limited (together, "FTSE TMX") and (4) MTSNext Limited ("MTSNext"). All rights reserved.

FTSE Russell® is a trading name of FTSE, Russell, FTSE TMX and MTS Next Limited. "FTSE®", "Russell®", "FTSE Russell®" "MTS®", "FTSE TMX®", "FTSE4Good®" and "ICB®" and all other trademarks and service marks used herein (whether registered or unregistered) are trade marks and/or service marks owned or licensed by the applicable member of the LSE Group or their respective licensors and are owned, or used under licence, by FTSE, Russell, MTSNext, or FTSE TMX.

All information is provided for information purposes only. Every effort is made to ensure that all information given in this publication is accurate, but no responsibility or liability can be accepted by any member of the LSE Group nor their respective directors, officers, employees, partners or licensors for any errors or for any loss from use of this publication or any of the information or data contained herein.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the results to be obtained from the use of the FTSE Russell Indexes or the fitness or suitability of the Indexes for any particular purpose to which they might be put.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors provide investment advice and nothing in this document should be taken as constituting financial or investment advice. No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any representation regarding the advisability of investing in any asset. A decision to invest in any such asset should not be made in reliance on any information herein. Indexes cannot be invested in directly. Inclusion of an asset in an index is not a recommendation to buy, sell or hold that asset. The general information contained in this publication should not be acted upon without obtaining specific legal, tax, and investment advice from a licensed professional.

No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the applicable member of the LSE Group. Use and distribution of the LSE Group index data and the use of their data to create financial products require a licence from FTSE, Russell, FTSE TMX, MTSNext and/or their respective licensors.

Past performance is no guarantee of future results. Charts and graphs are provided for illustrative purposes only. Index returns shown may not represent the results of the actual trading of investable assets. Certain returns shown may reflect back-tested performance. All performance presented prior to the index inception date is back-tested performance. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. However, back-tested data may reflect the application of the index methodology with the benefit of hindsight, and the historic calculations of an index may change from month to month based on revisions to the underlying economic data used in the calculation of the index.