Karyopharm Therapeutics Inc. (KPTI)

Flurry of Trial Activity in 2014 as Karyopharm Reports 1Q14

MARKET OUTPERFORM | Price: $25.84 | Target Price: $50.00

MARKET DATA

Price	$25.84
52-Week Range:	$15.50 - $47.87
Shares Out. (M):	29.8
Market Cap ($M):	$770.0
Average Daily Vol. (000):	248.0
Cash (M):	$156
Cash/Share:	$5.24
Enterprise Value (M):	$785
Float (M):	14.6
LT Debt (M):	$0

Source: Thomson Reuters and JMP Securities LLC

FY DEC		2013A	2014E	2015E
Revenue ($M)	1Q	--	$0.2A	$0.0
	2Q	$0.4	$0.0	$0.0
	3Q	$0.0	$0.0	$0.0
	4Q	$0.0	$0.0	$0.0
	FY	**$0.0**	**$0.0**	**$0.0**
EPS	1Q	--	($0.46)A	--
	2Q	($5.39)	($0.44)	--
	3Q	($3.66)	($0.46)	--
	4Q	($0.47)	($0.53)	--
	FY	**($5.59)**	**($1.89)**	**($5.18)**
	Previous FY	NC	($1.90)	($5.20)

EPS 2013 Q2: Results are for six months ended June 30, 2013
Revenue ($M) 2013 Q2: Results are for six months ended June 30, 2013
Source: Company reports and JMP Securities LLC

STOCK PRICE PERFORMANCE

INVESTMENT HIGHLIGHTS

Thesis intact following the release of 1Q14 results from Karyopharm Therapeutics; reiterate our Market Outperform rating and $50 price target based on DCF, CAGR, and SOTP methodologies. The near-term focus remains on selinexor Phase I updates at ASCO in NHL and AML. KPTI recorded a net operating loss and EPS of $13.7MM and ($0.46), respectively, marginally greater than our estimates of $12.5MM and ($0.43), on higher R&D spend. We remind investors that as a development-stage biotech company, KPTI continues to be a story of clinical execution with its lead asset selinexor, rather than of earnings. Timelines to the initiation of registration-directed trials in AML (2Q14), Richter's Syndrome CLL (2Q14), and DLBCL (2H14) remain intact. We anticipate that Phase I results in each of these indications at ASCO (including activity at higher doses) will affirm selinexor's likelihood of success. Recent developments have also centered around a robust IST effort, including recent monotherapy studies in glioblastoma, gynecologic malignancies, pediatric leukemia, and two AML combination trials with Dacogen and BSC plus low dose Ara-C or HMA therapy (Dacogen is an HMA). We view the breadth and scope of these trials, spanning a diversity of indications and trial centers, as a validating signal for the clinical activity of selinexor, and we maintain a high level of confidence in its clinical success. We have made minimal changes to our model, reflecting the impact of 1Q14 actuals.

Registration directed studies at a glance:

AML, initiating 2Q14. A 2:1 randomized Phase II study in ~150 first relapsed AML patients, not suitable for intensive chemotherapy or transplant. The trial will compare selinexor (55mg/m2 BIW) to a control arm of physician's choice (including BSC, low-dose Ara-C, or HMA therapy). The primary endpoint is overall survival, with 80% power to show ≥50% improvement in OS, implying a HR=0.65, expected survival of 4.5 months for selinexor versus 3.0 months control.

DLBCL, initiating 2H14. A 2:1 randomized Phase II trial in ~300 third-line or greater DLBCL patients, comparing selinexor (60mg/m2 BIW) to physician's choice chemotherapy. The primary endpoint is progression free survival, with 80% power to demonstrate an HR of ~0.63 (6.4 months with selinexor versus 4.0 months control).

Richter's syndrome, 2Q14. Fifty (50) patient, monotherapy Phase II study in relapsed Richter's syndrome CLL (~10% of CLL population).

Michael G. King, Jr.
mking@jmpsecurities.com
(212) 906-3520

Eric Joseph, PhD
ejoseph@jmpsecurities.com
(212) 906-3514

Investigator sponsored trials at a glance:

- **AML+ Dacogen, treatment naïve elderly and R/R AML.** Single-arm, ~40-patient Phase I trial in combination with standard dose Dacogen (decitabine), in treatment naïve patients ≥60 years, ineligible for chemotherapy and/or relapsed/refractory AML. Treatment comprises an induction period of up to four cycles of 10 days of decitabine followed by selinexor BIW, and a maintenance period of 5 days of decitabine followed by selinexor BIW. Primary endpoints include safety, tolerability, and MTD. Secondary endpoints include overall response and pharmacodynamic analysis.
- **Gynecologic Malignancies (SIGN).** Single-arm, ~63-patient, Phase II study in previously treated ovarian, cervical, and endometrial cancer, evaluating 50mg/m2 BIW dosing with selinexor. Primary endpoint of objective response.
- **Recurrent Glioblastoma (KING).** Single-arm, ~30-patient Phase II study in patients with recurrent glioblastoma after failure with radiation and temozolomide.
- **Pediatric leukemia.** Single-arm, ~25-30-patient Phase I study in children with relapsed or refractory ALL or AML.

FIGURE 1. Upcoming Catalysts

Timing	Drug	Catalyst
1H14	Selinexor	Initiation of first pivotal Phase II/III study in (elderly R/R AML)
1H14	Selinexor	Updated Phase I data in heme malignancy and solid tumors at ASCO (#2537, May 30, and #8518 and #7032, May 31)
1H14	Selinexor	Initiation of second Phase II trial in solid tumor indication (squamous cell cancer, head and neck, lung and esophageal cancer)
3Q14	Selinexor	Initiation of second pivotal Phase II/III study in (3L+ DLBCL)
2H14	KPT-350	IND completion for use in inflammation, auto-immune, and anti-viral indications
2H14	PAK Inhibitor	IND completion for use in oncology indications

Source: Company reports

REVIEW OF 1Q14 FINANCIALS AND CHANGES TO OUR MODEL

As noted above, KPTI recorded a 1Q14 net operating loss of $13.7MM, greater than our estimate of $12.5MM. Specifically, R&D spend of $28.5MM was higher than our $25.3MM estimate, as was G&A spend of $5.9MM compared to our $4.5MM estimate. Variance in actual versus estimated EPS was driven primarily by a lower than expected year-end weighted average outstanding share count. A comparison of 1Q14 results versus JMP and consensus estimates is detailed in Figure 2.

FIGURE 2. 1Q14 Actuals versus JMP and Consensus Estimates

Karyopharm Therapeutics(KPTI)	1Q14 Results		
Abridged Income Statement ($ MM)	JMP Estimate	Actual	Variance (JMP vs. Actual)
Total Revenues	**-**	**0.17**	**0.17**
Operating Expenses	**12.50**	**13.88**	**1.4**
Research and development	9.90	10.98	1.1
General and administrative	2.60	2.90	0.3
Operating income (loss)	**(12.50)**	**(13.71)**	**1.2**
Other income (expense)	**0.00**	**0.02**	**0.02**
Interest income	0.00	0.02	0.02
Pretax income (loss)	**(12.50)**	(13.69)	(1.19)
Provision for Income Tax	0.00	0.00	-
Net income (loss)	**(12.50)**	(13.69)	(1.19)
EPS Calculations			
Basic EPS	**$ (0.43)**	**$ (0.46)**	**$ (0.03)**
Diluted EPS	**$ (0.43)**	**$ (0.46)**	**$ (0.03)**
Basic shares outstanding	28.741	29.607	0.866
Diluted shares outstanding	28.741	29.607	0.866

Source: JMP Securities LLC, Company reports

FIGURE 3. Changes to Our Income Statement

Karyopharm Therapeutics (KF	2Q14E		3Q14E		4Q14E		FY 2014E		FY 2015E		FY 2016E		FY 2017E	
($ MM)	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New
Sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.1	44.1	103.6	103.6
ROW Royalties													6.8	6.8
Other														
Total Revenue	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**44.13**	**44.13**	**110.40**	**110.40**
COGS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	4.4	4.4	9.3	9.3
Gross Profit	-	-	-	-	-	-	-	0.17	-	-	39.7	39.7	101.1	101.1
Operating Expenses	**13.0**	**13.0**	**13.5**	**13.5**	**15.7**	**15.7**	**54.7**	**56.0**	**149.8**	**153.6**	**228.7**	**234.4**	**295.4**	**302.8**
Research and development	10.2	10.2	10.6	10.6	11.7	11.7	42.4	43.5	76.3	78.3	122.1	125.2	164.9	169.0
General and administrative	2.8	2.8	2.9	2.9	4.0	4.0	12.3	12.6	73.5	75.3	106.6	109.2	130.6	133.8
Operating income (loss)	(13.0)	(13.0)	(13.5)	(13.5)	(15.7)	(15.7)	(54.7)	(55.9)	(149.8)	(153.6)	(189.0)	(194.7)	(194.3)	(201.8)
Other income (expense)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest income	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest expense	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pretax income	(13.0)	(13.0)	(13.5)	(13.5)	(15.7)	(15.7)	(54.7)	(55.9)	(149.8)	(153.6)	(189.0)	(194.7)	(194.3)	(201.8)
Provision for Income Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net income	(13.0)	(13.0)	(13.5)	(13.5)	(15.7)	(15.7)	(54.7)	(55.9)	(149.8)	(153.6)	(189.0)	(194.7)	(194.3)	(201.8)
Basic EPS	**$ (0.45)**	**$ (0.44)**	**$ (0.47)**	**$ (0.46)**	**$ (0.55)**	**$ (0.53)**	**$ (1.90)**	**$ (1.89)**	**$ (5.20)**	**$ (5.18)**	**$ (6.17)**	**$ (6.18)**	**$ (5.98)**	**$ (6.05)**
Diluted EPS	**$ (0.45)**	**$ (0.44)**	**$ (0.47)**	**$ (0.46)**	**$ (0.55)**	**$ (0.53)**	**$ (1.90)**	**$ (1.89)**	**$ (5.20)**	**$ (5.18)**	**$ (6.17)**	**$ (6.18)**	**$ (5.98)**	**$ (6.05)**
Basic shares outstanding	28.76	29.61	28.77	29.62	28.78	29.63	28.77	29.52	28.82	29.67	30.65	31.50	32.50	33.35
Diluted shares outstanding	28.76	29.61	28.77	29.62	28.78	29.63	28.77	29.52	28.82	29.67	30.65	31.50	32.50	33.35

Source: JMP Securities LLC, Company reports

FIGURE 4. Updated Income Statement

Income Statement ($MM)	1Q14A	2Q13E	3Q14E	4Q14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Product Sales and Royalties:											
Selinexor											
US Sales						-	44.1	103.6	308.1	842.2	1,463.8
ROW Royalties						-	-	6.8	17.1	43.2	111.9
Total Product Sales and Royalties	0.0	0.0	0.0	0.0	0.0	0.0	44.1	110.4	325.2	885.3	1,575.8
Collaboration Revenue	0.2										
Total Revenue	0.2	0.0	0.0	0.0	0.0	0.0	44.1	110.4	325.2	885.3	1,575.8
Cost of Goods Sold							4.4	9.3	24.6	67.4	117.1
Gross Profit	0.2	0.0	0.0	0.0	0.2	0.0	39.7	101.1	300.5	818.0	1,458.7
Operating Expenses:											
Research and Development	11.0	10.2	10.6	11.7	43.5	78.3	125.2	169.0	189.3	204.5	214.7
General and administrative	2.9	2.8	2.9	4.0	12.6	75.3	109.2	133.8	153.9	169.2	186.2
Total operating expenses	13.9	13.0	13.5	15.7	56.0	153.6	234.4	302.8	343.2	373.7	400.9
Operating income (loss)	(13.7)	(13.0)	(13.5)	(15.7)	(55.9)	(153.6)	(194.7)	(201.8)	(42.7)	444.2	1,057.8
Other income (expense):											
Interest income	0.0										
Interest expense											
Total other income, net	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Change in fair value of preferred stock warrant liability											
Foreign currency transaction gain (loss)											
Pretax income (loss)	(13.7)	(13.0)	(13.5)	(15.7)	(55.8)	(153.6)	(194.7)	(201.8)	(42.7)	444.2	1,057.8
Income tax benefit (provision)					0.0	0.0	0.0	0.0	0.0	0.0	(158.7)
Tax Rate					*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*15%*
Comprehensive income (loss)	(13.7)	(13.0)	(13.5)	(15.7)	(55.8)	(153.6)	(194.7)	(201.8)	(42.7)	444.2	899.1
Accretion of redeemable convertible preferred stock											
Net income (loss) attributable to common stockholders	(13.7)	(13.0)	(13.5)	(15.7)	(55.8)	(153.6)	(194.7)	(201.8)	(42.7)	444.2	899.1
Basic EPS to common shareholders	$ (0.46)	$ (0.44)	$ (0.46)	$ (0.53)	$ (1.89)	$ (5.18)	$ (6.18)	$ (6.05)	$ (1.27)	$ 13.24	$ 26.70
Diluted EPS to common shareholders	$ (0.46)	$ (0.44)	$ (0.46)	$ (0.53)	$ (1.89)	$ (5.18)	$ (6.18)	$ (6.05)	$ (1.27)	$ 12.87	$ 25.97
Basic shares outstanding	29.6	29.6	29.6	29.6	29.5	29.7	31.5	33.4	33.5	33.6	33.7

Source: JMP Securities LLC, Company reports

Company Description

Karyopharm Therapeutics (KPTI) is a Natick, MA based, clinical-stage biopharmaceutical company focused on the discovery and development of novel first-in-class drugs directed against nuclear transport targets for the treatment of cancer and other major diseases. Karyopharm's Selective Inhibitors of Nuclear Export (SINE) compounds function by preventing the export of tumor suppressor proteins from the nucleus, driving their accumulation and restoration of function. The company's lead pipeline candidate selinexor (KPT-330) is a Phase I orally available small molecule inhibitor of XPO1, set to initiate pivotal Phase II/III evaluation in various hematologic malignancies in 2014. Karyopharm is also developing selinexor and SINE as potential therapies for autoimmune and inflammatory disease, viral infections and wound healing.

Investment Risks

Clinical. Drug development is an inherently risky business. Clinical trials always carry a risk of failure and Karyopharm's assets (Selinexor (KPT330), KPT-350, PAK4 inhibitor, verdinexor or future drug candidates) may fail to demonstrate meaningful enough levels of efficacy in current or future clinical trials.

Regulatory and commercial. The ability of Karyopharm to market its drugs depends on those drugs obtaining approval from the FDA and foreign regulatory agencies. Failure to achieve approval or delays in the timelines to approval could negatively impact the company's share price.

Competitive. Hematologic malignancies including multiple myeloma, indolent non-Hodgkin lymphoma and acute myeloid leukemia represent increasingly competitive fields and Karyopharm faces competition from both commercial and development-stage companies with product(s) or product candidates addressing similar clinical indications. Some of these companies may possess substantially greater R&D and commercial resources than Karyopharm. As such, there is no assurance Karyopharm will be competitive or differentiated from other drug products.

Financial. Following its IPO, we estimate that Karyopharm will end 4Q13 with approximately $153MM in cash and cash equivalents, which are adequate resources to fund operations into 2015, according to Karyopharm financial guidance. We anticipate the company is likely to seek additional equity financing in the form of a secondary offering in order to complete the development of its drug candidates, creating dilution risk for existing shareholders.

JMP FACTS AND DISCLOSURES

Analyst Certification:

The research analyst(s) who prepared this report does/do hereby certify that the views presented in this report are in accordance with my/our personal views on the securities and issuers discussed in this report. As mandated by SEC Regulation AC no part of my/our compensation was, is or will be directly or indirectly related to the specific views or recommendations expressed herein. This certification is made under the obligations set forth in SEC Regulation AC. Any other person or entity may not use it for any other purpose. This certification is made based on my/our analysis on the date of this report's publication. I/We assume no obligation to update this certification to reflect any facts,circumstances or events that may subsequently come to my/our attention. Signed Michael G. King and Eric Joseph

JMP Securities Disclosures:

JMP Securities currently makes a market in the security of Karyopharm Therapeutics Inc.

JMP Securities was manager or co-manager of a public offering of securities for Karyopharm Therapeutics Inc. (KPTI) in the past 12 months, and received compensation for doing so.

JMP Securities Investment Opinion Definitions:

Market Outperform (MO): JMP Securities expects the stock price to outperform relevant market indices over the next 12 months.

Market Perform (MP): JMP Securities expects the stock price to perform in line with relevant market indices over the next 12 months.

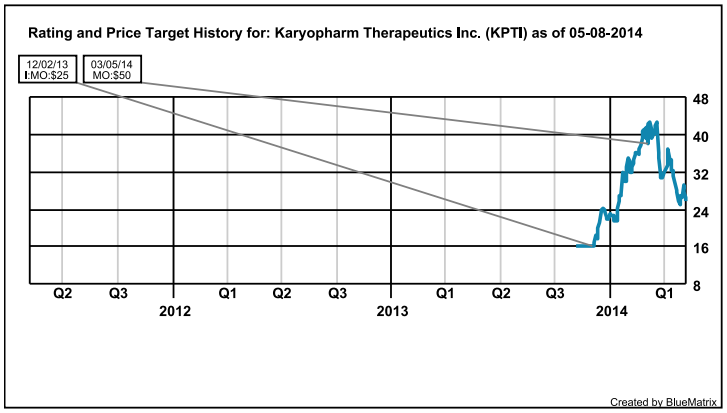
Market Underperform (MU): JMP Securities expects the stock price to underperform relevant market indices over the next 12 months.

JMP Securities Research Ratings and Investment Banking Services: (as of May 8, 2014)

JMP Rating	Regulatory Equivalent	# Co's Under Coverage	*% of Total*	Regulatory Equivalent	# Co's Under Coverage	*% of Total*	# Co's Receiving IB Services in Past 12 Months	*% of Co's With This Rating*
MARKET OUTPERFORM	Buy	254	*58.12%*	Buy	254	*58.12%*	102	*40.16%*
MARKET PERFORM	Hold	135	*30.89%*	Hold	135	*30.89%*	17	*12.59%*
MARKET UNDERPERFORM	Sell	5	*1.14%*	Sell	5	*1.14%*	0	*0%*
COVERAGE IN TRANSITION		43	*9.84%*		43	*9.84%*	0	*0%*
TOTAL:		437	*100%*		437	*100%*	119	*27.23%*

Stock Price Chart of Rating and Target Price Changes:

Note: First annotation denotes initiation of coverage or 3 years, whichever is shorter. If no target price is listed, then the target price is N/A. In accordance with NASD Rule 2711, the chart(s) below reflect(s) price range and any changes to the rating or price target as of the end of the most recent calendar quarter. The action reflected in this note is not annotated in the stock price chart. Source: JMP Securities.



JMP Disclaimer:

JMP Securities LLC (the “Firm”) compensates research analysts, like other Firm employees, based on the Firm’s profitability, which includes revenues from the Firm’s institutional sales, trading, and investment banking departments as well as on the quality of the services and activities performed that are intended to benefit the Firm’s institutional clients. These data have been prepared by JMP Securities LLC for informational purposes only and are based on information available to the public from sources that we believe to be reliable, but we do not guarantee their accuracy or completeness. Any opinions and projections expressed herein reflect our judgment at this date and are subject to change without notice. These data are neither intended nor should be considered as an offer to sell or a solicitation or a basis for any contract for the purchase of any security or other financial product. JMP Securities LLC, its affiliates, JMP Group LLC, Harvest Capital Strategies LLC, and their respective partners, directors, officers, and associates may have a long or short position in, may act as a market maker for, or may purchase or sell a position in the securities mentioned herein. JMP Securities LLC or its affiliates may be performing, have performed, or seek to perform investment banking, advisory, or other services and may have acted as manager or co-manager for a public offering of securities for any company mentioned herein. The reader should assume that JMP Securities LLC will solicit business from the company covered in this report. Members of our Sales and Trading Department provide oral and/or written market opinions and trading strategies to our clients that reflect their personal opinions about stocks that are the subject of the firm's research reports. Our research analysts discuss trading strategies with clients that sometimes reflect short-term expectations for the price of the securities that are the subject of research reports. These trading strategies are distinct from the analysts' fundamental rating for the stock, which is based upon the analysts' view compared to other stocks under coverage for the relevant time period. JMP Securities LLC is a member of FINRA, NASDAQ, and SIPC.

Jeffrey H. Spurr
Director of Research
(415) 835-3903

RESEARCH PROFESSIONALS

FINANCIAL SERVICES

Alternative Asset Managers
Devin Ryan (212) 906-3578
Brian McKenna (212) 906-3545

Commercial & Specialty Finance
Christopher York (415) 835-8965
Hannah Kim, CFA (415) 835-8962

Consumer Finance
David M. Scharf (415) 835-8942
Jeremy Frazer (312) 768-1796

Financial Processing & Outsourcing
David M. Scharf (415) 835-8942
Jeremy Frazer (312) 768-1796

Insurance
Matthew J. Carletti (312) 768-1784
Christine Worley (312) 768-1786

Investment Banks & Brokers
Devin Ryan (212) 906-3578
Brian McKenna (212) 906-3545

Mortgage Operating Companies
REITs: Agency, Hybrid, & Commercial Mortgage
Steven C. DeLaney (404) 848-7773
Trevor Cranston, CFA (415) 869-4431
Charter Robinson (757) 613-8955
Benjamin Zucker (212) 906-3529

HEALTHCARE

Biotechnology
Liisa A. Bayko (312) 768-1785
Heather Behanna, PhD (312) 768-1795
Andrew Prigodich (312) 768-1788
Jason N. Butler, PhD (212) 906-3505
Caroline Palomeque (212) 906-3509
Michael G. King, Jr. (212) 906-3520
Eric Joseph, PhD (212) 906-3514
Joseph A. Knowles (212) 906-3525

Healthcare Services & Facilities
Peter L. Martin, CFA (415) 835-8904
Aaron Hecht (415) 835-3963
Arthur Kwok (415) 835-8908

Life Science Tools & Diagnostics
J. T. Haresco, III, PhD (415) 869-4477
Marie T. Casey, PhD (415) 835-3955

Medical Devices
J. T. Haresco, III, PhD (415) 869-4477
Marie T. Casey, PhD (415) 835-3955

Medical Devices & Supplies
David Turkaly (212) 906-3563
John Gillings (212) 906-3564

REAL ESTATE

Housing & Land Development
Peter L. Martin, CFA (415) 835-8904
Aaron Hecht (415) 835-3963
Bharathwajan Iyengar (415) 835-3902

Lodging & Leisure
Robert A. LaFleur (212) 906-3510
Whitney Stevenson (212) 906-3538

Property Services
Mitch Germain (212) 906-3546
Peter Lunenburg (212) 906-3537

REITs: Healthcare, Residential, & Specialty
Peter L. Martin, CFA (415) 835-8904
Aaron Hecht (415) 835-3963
Arthur Kwok (415) 835-8908

REITs: Office, Industrial, & Diversified
Mitch Germain (212) 906-3546
Peter Lunenburg (212) 906-3537

Residential Services
Peter L. Martin, CFA (415) 835-8904
Aaron Hecht (415) 835-3963
Bharathwajan Iyengar (415) 835-3902

TECHNOLOGY

Communications Equipment & Internet Security
Erik Suppiger (415) 835-3918
John Lucia (415) 835-3920

Internet & Digital Media
Ronald V. Josey III (212) 906-3528
Andrew Boone (415) 835-3957
Michael Wu (415) 835-8996

Software
Patrick Walravens (415) 835-8943
Peter Lowry (415) 869-4418
Caitlin Schields (415) 835-8960
Greg McDowell (415) 835-3934

Wireless & Cloud Computing Technologies
Alex Gauna (415) 835-8998

ADDITIONAL CONTACTS

Thomas R. Wright
Director of Equities
(212) 906-3599

Dan Wychulis
Director of Institutional Sales
(617) 235-8530

600 Montgomery Street, Suite 1100
San Francisco, CA 94111
www.jmpsecurities.com