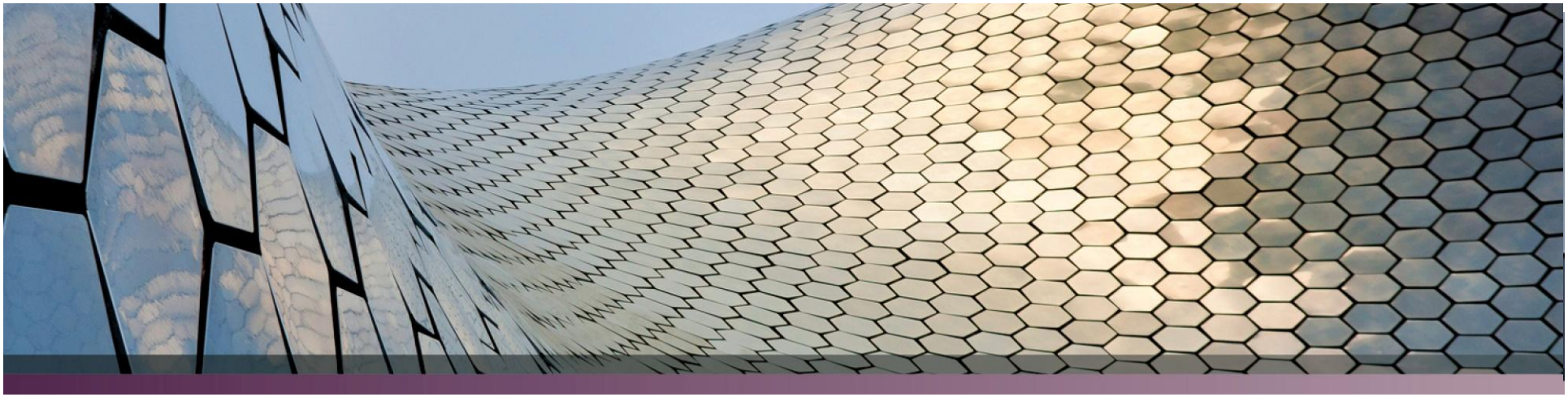

TetraLogic Pharmaceuticals (TLOG, $10.48) – Initiating Coverage with BUY ($15 PT); Birinapant's Broad Potential in Hematologic/Solid Tumors Not Reflected in Current Valuation

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TLOG – Company Background

COMPANY DESCRIPTION

TetraLogic Pharmaceuticals (TLOG) is a clinical-stage biopharmaceutical company focused on the discovery and development of small molecule SMAC mimetic oncology drugs. SMAC mimetics have the potential to overcome mechanisms of resistance to typical oncology/antiviral drugs and drive cancer cells and virally infected cells to self destruct via apoptosis. TLOG's lead drug, birinapant, is currently in early-stage clinical development for hematologic malignancies (MDS/AML) and solid tumors (OC and mCRC), both in combination with standard treatments and complementary experimental drugs. The company intends to initiate a randomized Ph.II trial of a birinapant-based combination regimen in MDS in '14. Additionally, in collaboration with AMGN, TLOG recently advanced birinapant in combination with AMGN's TRAIL agonist conatumumab into Ph.I/II testing in advanced ovarian cancer. Longer term, TLOG believes birinapant may have potential as a hepatitis B antiviral.

PRODUCT PORTFOLIO

	Preclinical	Ph.I	Ph.II	Ph.III	Status
Birinapant in Blood Cancers					
AML/MDS/ALL *Birinapant alone*	■	■	■		**Ph.I/II in progress**
Myelodysplastic Syndrome (MDS) *Birinapant plus azacitidine*	■	■			**Ph.II start in 2Q14 Readout in 2Q15**
Birinapant in Solid Tumors					
Ovarian Cancer (OC) *Birinapant alone*	■	■	■		**Ph.II in progress**
Ovarian Cancer (AMGN Collaboration) *Birinapant plus conatumumab*	■	■			**Ph.I/II in progress Readout in 2Q14**
Colorectal Cancer (mCRC) *Birinapant plus irinotecan*	■	■	■		**Ph.II**
Birinapant in Viral Infections					
Hepatitis B (HBV) *Birinapant*	■				**Ph.I start in 4Q14 Readout 2Q15**

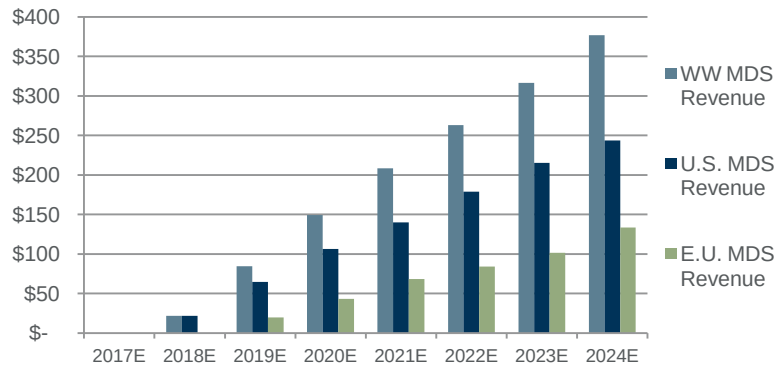
Source: Company Documents and Guggenheim Securities, LLC

KEY FINANCIALS

Market Cap	$222.8M
52 week high-low	$10.97-$6.91
Inst. own	62%
Enterprise Value	$176.8M
Total Cash	$46M
Total Cash Per Share	$2.19

Source: Company Documents and Guggenheim Securities, LLC

Projected Probability-Adjusted Birinapant MDS Sales ($M)



Source: Guggenheim Securities, LLC

KEY QUESTIONS

- What is the likelihood of positive results in 2Q15 from the controlled Ph.II trial of birinapant+ Vidaza in MDS?
- What is the potential for additional cancer indications for birinapant combinations?
- Is there a straightforward path to approval of birinapant in MDS (2H17)?
- What is the market opportunity for birinapant in MDS?
- With birinapant+ AMGN's TRAIL agonist, conatumumab, in Ph.I/II testing in ovarian cancer (OC), what is this combination's potential differentiation vs. prior experience with TRAIL agonist-based combinations?
- Assuming positive initial Ph.I results in 2Q14, what is the LT potential of birinapant+conatumumab in OC and other solid tumors?

TLOG – Investment Thesis

• **We believe TLOG's lead drug, birinapant, is a highly differentiated candidate in a novel cancer drug class.** TLOG is focused on developing birinapant for myelodysplastic syndromes (MDS), solid tumors in combination with targeted agents, and, over the longer term, infectious diseases such as hepatitis B (HBV). The small molecule drug mimics SMAC, a proapoptotic protein that is reduced or eliminated in many cancers causing resistance to apoptosis driven by chemotherapeutics and targeted therapies. Several biotech/pharmaceutical companies have attempted to develop SMAC mimetics, but these companies' first-generation candidates failed due to substantial toxicity. In contrast, birinapant has been shown to be relatively safe in extensive Ph.I/II testing (>250 pts), to date. With a clear mechanistic rationale for efficacy in several major cancer types and good tolerability, we believe birinapant has substantial market potential. We believe TLOG is currently undervalued ahead of key Ph.I results for birinapant in combination with azacitidine in MDS in 1Q14 and Ph.I results for birinapant in combination with AMGN's conatumumab in ovarian cancer (OC), expected in 2Q14.

• **SMAC mimetics, like birinapant, remain very promising, despite past failures.** First-generation SMAC mimetics had significant, likely on-target side effects, such as substantial weight loss, nausea, neutropenia, and thrombocytopenia. We believe these side effects were likely due to nonselective inhibition of the apoptosis inhibitors cIAP1 and cIAP2, with the on-target side effects attributable to strong cIAP2 inhibition. Contrasting with these compounds, we believe TLOG has fine-tuned birinapant's profile to reduce cIAP2 inhibition and side effects. Notably, the company has conducted extensive Ph.I/II testing of birinapant in greater than 250 patients, with the only notable side effect likely attributable to cIAP2 inhibition being reversible Bell's Palsy. We believe this is clear evidence of birinapant's tolerability, as we would have expected that obvious SMAC mimetic-associated toxicity should have been apparent in this large sample size.

• **We are optimistic regarding birinapant's potential in MDS.** TLOG has reported initial Ph.I results for birinapant in AML/secondary AML, with evidence of single-agent activity as assessed by blast reduction despite the very advanced patient population in the trial. The company is currently testing birinapant in combination with CELG's Vidaza (azacitidine) in a Ph.I trial in higher-risk MDS. Based on the Ph.I single-agent birinapant results and the synergistic activity of birinapant+azacitidine in preclinical models, we expect positive initial results from this trial in 1Q14. With these Ph.I results in hand, TLOG plans to conduct a randomized Ph.II MDS trial of birinapant+Vidaza vs. Vidaza, beginning 2Q14, with results in 2Q15. We view MDS as an ideal lead indication for birinapant, given a recent history of successful new drug development in this cancer.

• **Birinapant's market opportunity in higher-risk MDS is substantial, in our view.** Vidaza is a standard of care for all subtypes of MDS in the U.S. and outside of the U.S., and the drug reached worldwide peak sales of >$800M in '12, prior to the introduction of generic azacitidine in 2H13. Although CELG has not detailed what proportion of Vidaza's sales are attributable to the drug's use in higher-risk MDS, which represents ~30% of MDS patients, we believe the drug is currently widely used in this setting based on compelling results from the Ph.II AZA-001 trial. Based on this, we believe our ~$400M worldwide peak sales estimate for birinapant in this setting is achievable, should the drug in combination with Vidaza become a standard therapy in the '18 time frame. We note that our current TLOG valuation includes a 50% probability adjustment for birinapant's approval in MDS, which we believe is appropriate given the drug's relatively early stage of development.

TLOG – Investment Thesis (cont'd)

• **Birinapant in combination with AMGN's conatumumab should be potent in ovarian cancer (OC) and potentially other major solid tumors.** TLOG is collaborating with AMGN to develop birinapant in combination with AMGN's conatumumab, an apoptosis-inducing TRAIL agonist mAb that has shown underwhelming efficacy, but notably good tolerability, in extensive Ph.I/II testing in multiple cancers, both as a single agent and in several combination regimens. However, we believe the history of clinical failure with conatumumab, and competitive TRAIL agonist mAbs, is not informative regarding the likelihood of success of birinapant+conatumumab. There is growing evidence that downregulation of SMAC and/or upregulation of CIAP1/2 is a likely a major source of resistance to the TRAIL agonists, and we believe birinapant should address this resistance. Consistent with this, TLOG's preclinical results for birinapant+conatumumab show that the combination has synergistic activity in several solid tumor models, including ovarian cancer (OC). TLOG/AMGN have recently begun Ph.I/II testing of the combination in advanced OC, with initial results expected in 2Q14. Based on preclinical results, we see a good probability of positive initial results from this trial, which we view as a major NT positive catalyst for TLOG.

• **The Ph.I clinical results for birinapant+conatumumab in 2Q14 have the potential to open lucrative strategic opportunities for TLOG.** We believe the Ph.I results for the combination have the potential to lead to a broader collaboration with AMGN or other companies, including Daiichi Sankyo, Roche, and GSK, that have focused substantial resources on developing TRAIL agonist mAbs, with no success. Quite notably, TLOG's collaboration with AMGN is non-exclusive, and TLOG is also currently collaborating with Daiichi Sankyo to investigate the potential of birinapant in combination with Daiichi's TRAIL agonist tigatuzumab. Should birinapant+conatumumab show early clinical activity in OC, a cancer where none of the TRAIL agonist mAbs have shown meaningful activity, we believe there would be a high level of interest from several companies in securing exclusive rights to developing birinapant in combination with TRAIL agonists. Although this would not necessarily involve the outright acquisition of TLOG, we do not believe this possibility should be underestimated, given our discussions with company management regarding business strategy.

• **Longer-term potential for birinapant in metastatic colorectal cancer (mCRC) and, potentially, HBV.** TLOG has conducted relatively extensive Ph.I/II testing of birinapant in advanced mCRC, both as a single agent and in combination with irinotecan, and we believe the results suggest the drug has meaningful activity in this setting. Although the company is delaying further birinapant mCRC trials due to resource limitations, we see a longer-term path forward for the drug in 3rd-line/2nd-line mCRC. In addition, TLOG has generated preclinical results for birinapant that show the drug has HBV antiviral activity. However, we believe birinapant's potential in HBV will be limited due to entrenched competitive antivirals.

• **We believe TLOG's management team is uniquely experienced for a smaller cap biotechnology company.** TLOG's senior executives have impressive biotechnology experience, and, importantly, the company's medical/scientific leadership has a proven track record of success in oncology drug development. TLOG's CEO Kevin Buchi is a seasoned industry veteran and was the long-standing CFO of Cephalon and CEO of the company at the time of its acquisition by TEVA. TLOG's CMO, Dr. Lesley Russell, was responsible for the development of the blockbuster NHL/CLL drug Treanda at Cephalon, and TLOG's CSO Dr. Glenn Begley was a leader in AMGN's oncology group for several years.

TLOG – Investment Thesis (cont'd)

• **D.C. Scorecard: Net Positive, with a 3.6 average score.** TLOG currently has no meaningful Washington, D.C. presence, which we believe is appropriate for a developmental-stage company. However, the company's management team has a proven track record navigating the FDA review process, particularly in oncology, which we view as an important positive. Further, TLOG's focus on underserved patient populations with birinapant, either alone or in novel combinations, meshes well with the Agency's current focus in oncology.

Birinapant Development Timeline

2014				2015			
1Q14	2Q14	3Q14	4Q14	1Q15	2Q15	3Q15	4Q15
	Data: Ph.I bir+con OC		Ph.II bir+con OC start		Ph.II bir+con other ST start[1]		
Data: Ph.I bir+aza MDS	Ph.II bir+aza MDS start				**Data: Ph.II bir+aza MDS**	Ph.III bir+aza MDS start	
			Ph.I bir HBV start		**Data: Ph.I bir HBV**	Ph.II bir HBV start	
							Ph.II/III bir+ir mCRC start[2]

*bir: birinapant, aza: azacitidine, con: conatumumab, ST: solid tumors, ir: irinotecan

[1]: ~1H15 start

[2]: ~'15 start

Source: Company Documents and Guggenheim Securities, LLC

TLOG – Valuation and Risks

Initiating with Buy, $15 Price Target

Our $15 price target is based on a forward, 10-year DCF of probability-adjusted sales estimates for birinapant in MDS. We assign a 50% probability of clinical/commercial success for birinapant in higher-risk MDS. Given positive earlier trial results for birinapant in this setting, we believe this is an appropriate probability adjustment. Our valuation applies a 16.25% discount rate to reflect the relatively early stage of TLOG's lead program and a 2.5% terminal growth rate to reflect the company's promising collaboration profile with AMGN.

Risks to Our Price Target

Key risks to our price target include, but are not limited to, negative clinical trial results, either related to safety or efficacy, for TLOG's drug candidates; failure to gain U.S./E.U./Japan regulatory approval for birinapant; emerging clinical results for competitive therapies to birinapant in MDS/OC; failure of TLOG's collaborative partners to adequately advance development of clinical candidates; failure of TLOG to generate adequate financing; challenges to TLOG's intellectual property positions; and lower-than-expected U.S./ROW sales of birinapant.

Terminal growth rate

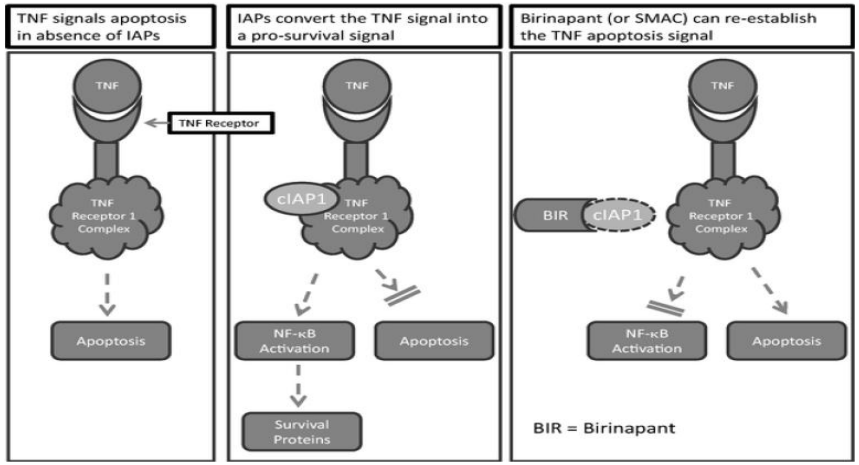
Discount rate	3.50%	3.25%	3.00%	2.75%	2.50%	2.25%	2.00%	1.75%	1.50%
15.25%	$ 18.87	$ 18.47	$ 18.09	$ 17.72	**$ 17.37**	$ 17.03	$ 16.71	$ 16.39	$ 16.09
15.50%	$ 18.02	$ 17.65	$ 17.29	$ 16.94	**$ 16.61**	$ 16.29	$ 15.99	$ 15.69	$ 15.40
15.75%	$ 17.21	$ 16.86	$ 16.52	$ 16.20	**$ 15.89**	$ 15.59	$ 15.30	$ 15.02	$ 14.75
16.00%	$ 16.45	$ 16.12	$ 15.80	$ 15.49	**$ 15.20**	$ 14.92	$ 14.64	$ 14.38	$ 14.12
16.25%	**$ 15.72**	**$ 15.41**	**$ 15.11**	**$ 14.82**	**$ 14.54**	**$ 14.28**	**$ 14.02**	**$ 13.77**	**$ 13.53**
16.50%	$ 15.03	$ 14.73	$ 14.45	$ 14.18	**$ 13.92**	$ 13.67	$ 13.42	$ 13.19	$ 12.96
16.75%	$ 14.37	$ 14.09	$ 13.83	$ 13.57	**$ 13.32**	$ 13.08	$ 12.85	$ 12.63	$ 12.41
17.00%	$ 13.74	$ 13.48	$ 13.23	$ 12.99	**$ 12.75**	$ 12.53	$ 12.31	$ 12.10	$ 11.89
17.25%	$ 13.14	$ 12.90	$ 12.66	$ 12.43	**$ 12.21**	$ 12.00	$ 11.79	$ 11.59	$ 11.40
17.50%	$ 12.57	$ 12.34	$ 12.12	$ 11.90	**$ 11.69**	$ 11.49	$ 11.29	$ 11.10	$ 10.92

Source: Guggenheim Securities, LLC

TLOG – Solid Mechanistic Rationale for Birinapant in Higher-Risk MDS

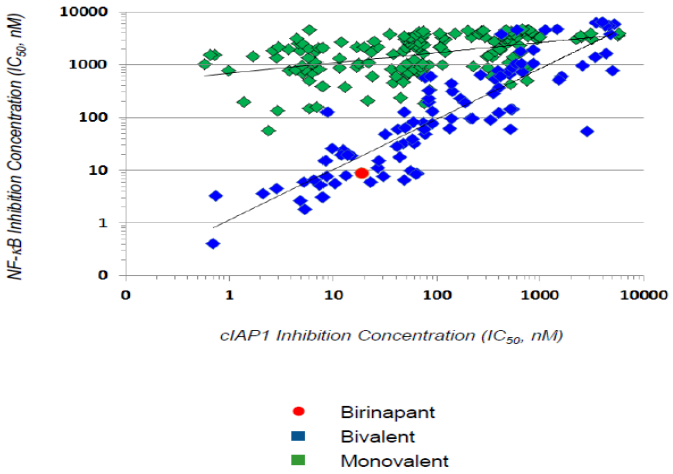
• **Birinapant promotes apoptosis.** Birinapant is a bivalent SMAC-mimetic that binds to and inhibits IAPs (inhibitors of apoptosis), including cIAP1 and cIAP2. By inhibiting IAPs, proteins that are often amplified in cancer cells suppressing apoptosis, birinapant activates apoptosis. In preclinical studies, birinapant selectively inhibited cIAP1, with markedly lower inhibition of cIAP2. Importantly, we believe there is strong evidence that excessive cIAP2 inhibition caused much of the side effect liabilities of 1st-generation SMAC mimetics. Further, birinapant has shown synergistic preclinical activity with chemotherapies that induce TNF, including irinotecan, targeted agents such as Vidaza, and the TRAIL agonist mAbs. Based on this, we believe birinapant's potential is highest in selected combination regimes, despite the fact that single-agent birinapant has appeared active in early clinical trials in both hematologic and solid tumors.

Birinapant Mimics SMAC and Enables TNF-Activated Apoptosis



Source: Company Documents and Guggenheim Securities, LLC

NF-kB Inhibition of Birinapant vs. Other IAP Inhibitors



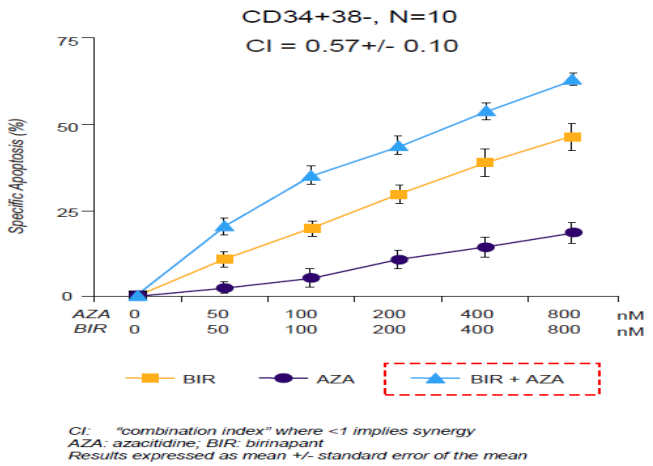
Source: Company Documents and Guggenheim Securities, LLC

• **There is a clear unmet medical need for new therapies for higher-risk MDS.** MDS is a form of blood cancer that leads to low blood cell counts or cytopenias, which is generally associated with substantially diminished patient quality of life and LT mortality. Consistent with WHO estimates, we currently estimate that 25-35% of MDS patients in the U.S./E.U. are diagnosed with higher-risk disease, based on either age or an adverse cytogenetic profile, with the highest-risk pts frequently progressing to acute leukemia (AML). The current standard of care for higher-risk MDS is CELG's Vidaza (azacitidine) and generic azacitidine. However, ~50-60% of higher-risk patients do not adequately respond to azacitidine (Raj et al.), and we believe this drug's efficacy can be improved in the 1st-line setting. Promisingly, the combination of birinapant+azacitidine has shown synergistic activity in preclinical MDS models.

TLOG – Birinapant+Azacitidine Entering Ph.II Testing in Higher-Risk MDS Following Promising Preclinical and Initial Clinical Results

• **Encouraging pre-clinical results for single-agent birinapant and birinapant+azacitidine in MDS/AML.** Single-agent birinapant and birinapant in combination with azacitidine demonstrated increased apoptosis after 48 hours in patient-derived AML cells and CD34+/CD38- AML stem cells in preclinical testing. Further, birinapant showed clonal suppression of AML colonies, while not effecting normal progenitor cells in 14-day cultures of patient-derived AML and normal bone marrow samples. We believe these preclinical results demonstrate that birinapant has at least additive activity when combined with azacitidine in AML and suggest the combination will be effective in clinical AML/MDS testing.

Birinapant Combo Activity in AML Stem Cells



Source: Company Documents and Guggenheim Securities, LLC

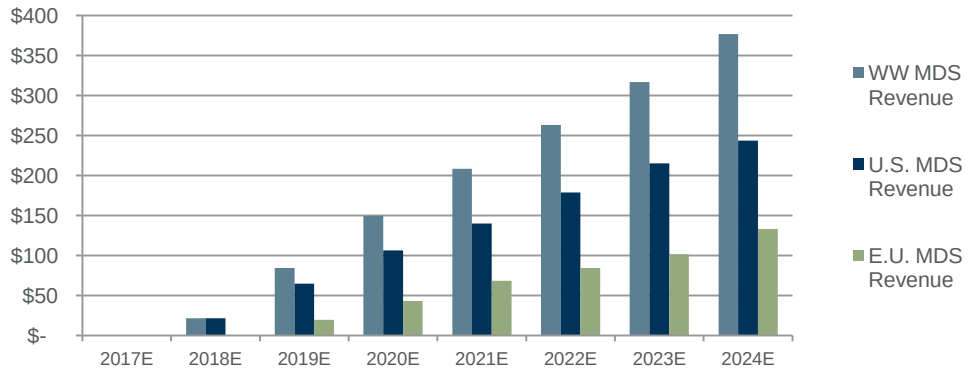
• **Solid AML results for birinapant in an investigator-sponsored Ph.I dose escalation trial.** Birinapant was administered in 30-minute IV infusions, once a week or twice a week for three weeks, with or without hydroxeurea. In 23 heavily pretreated, mostly elderly, patients (>70 yrs old) with AML secondary to MDS, single-agent birinapant showed an acceptable side effect profile (eight SAEs observed that were deemed related to birinapant, including febrile neutropenia and increased serum lipase and amylase), with manageable hematological toxicity. Notably, the drug showed signs of clinical activity, with one patient having meaningfully reduced disease burden, achieving a 10 mo. duration SD, despite a very poor prognosis. Importantly, we believe TLOG may have indentified NF-kB activity as an important birinapant biomarker in this early clinical experience, as low baseline NF-kB activity appeared to predict poor response to the drug.

• **TLOG to begin Ph.II testing of birinipant+azacitidine in 1st-line, higher-risk MDS in 2Q14, following Ph.I results for the combination in 1Q14.** The company is currently conducting a Ph.I/II trial of birinapant+azacitidine in ~15-20 higher-risk MDS patients experienced or naïve to azacitidine treatment, with results from the Ph.I portion of the trial expected in 1Q14. Although the primary Ph.I objective is to determine the MTD of birinapant in combination with azacitidine and a recommended Ph.II dose, we expect early efficacy results to also be available in 1Q14. Based on strong preclinical data for the combination in AML/MDS models and birinapant's single agent activity in AML, we see a good probability of positive results from the trial, which we view as a key NT catalyst for TLOG. Subsequently, TLOG will begin a Ph.II trial of the combination vs. azacitidine alone in 2Q14, with results likely in the 2Q15 time frame.

TLOG – Significant Market Potential for Birinapant in Higher-Risk MDS

• **We estimate birinapant will reach ~$400M in probability-adjusted peak worldwide sales in higher-risk MDS.** The American Cancer Society estimates an incidence of 12K MDS pts in the U.S. annually, or ~4.4-4.6 per 100K. We estimate a prevalence of ~220K treatment eligible MDS patients in '13 in the U.S./E.U., with ~30% (~40K) of these patients having higher-risk disease, growing ~6% annually due to population aging. We apply a 50% probability-adjustment to our WW MDS sales ests. We note that the below birinapant estimates are focused solely on sales in higher-risk MDS, which we view as conservative, given the drug's promise in intermediate-risk MDS and, potentially, AML.

Birinapant MDS Probability-Adjusted Revenue Estimates ($M), 2017-2024



Source: Guggenheim Securities, LLC

TLOG – Birinapant+Conatumumab Is a Potent and Synergistic Combination with Potential in Several Cancers

• **Limited clinical success with TRAIL agonists.** Upregulation of IAPs, converting the TNF self-destruction signal into a pro-survival signal via NF-kB, has been detected in several solid tumors, including ovarian cancer. TRAIL is a TNF superfamily member that induces apoptosis by binding to DR4/5. AMGN's conatumumab (AMG655) mimics endogenous TRAIL by binding to DR5 and selectively induces apoptosis in preclinical cancer models. In addition to the ten ongoing or completed trials of conatumumab (n=985), there are numerous other trials testing different TRAIL agonist mAbs in several advanced solid tumors. To date, however, the TRAIL agonist mAbs, including conatumumab, both as single agents and in combination with chemotherapies, have demonstrated minimal clinical activity in multiple cancers. We believe this strongly suggests there are compensatory anti-apoptotic mechanisms of resistance to these drug, which could be overcome in novel combinations.

• **Birinapant+conatumumab shows synergistic efficacy in preclinical OC models.** In Jan '13, under a Cooperation R&D Agreement (CRADA) with the NCI, the NCI initiated a Ph.II trial of single-agent birinapant in 11 patients with advanced epithelial OC. Although birinapant has shown acceptable tolerability in results to date, no objective responses have been reported. We believe the combination of birinapant with conatumumab has clear potential for superior anticancer effects vs. the drugs as single agents, based on complementary pro-apoptotic mechanisms. Consistent with this, birinapant+conatumumab produced synergistic cell death in OC cell lines resistant to either drug alone. Notably, TLOG has found that OC cells are the most sensitive to birinapant+conatumumab out of the multiple cancer types tested, but we believe the combination's potential is certainly not limited to OC.

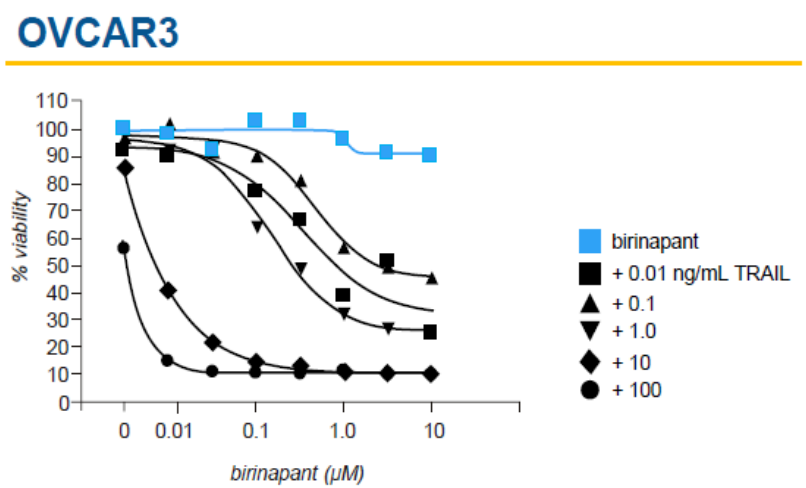
Developmental DR5 (TRAIL) Agonists

DR agonist	Indication	Manufacturer
Conatumumab (AMG 655): fully human mAb DR5 agonist	NSCLC, lymphoma, STS, CRC, PC	AMGN
Tigatuzumab (CS-1008): humanized mAb DR5 agonist	NSCLC, CRC, OC, PC	Daiichi Sankyo
Dulanermin: (rhApo2L/TRAIL) proapoptotic receptor agonist	NHL, CRC, NSCLC	AMGN
Lexatumumab: fully human mAb DR5 agonist	lymphoma	GSK
Mapatumumab: fully human mAb DR4 agonist	HCC, NHL, MM, CRC, NSCLC	GSK
PRO95780: fully human mAb DR5 agonist	CRC, NSCLC, NHL	RHHBY

*NSCLC: non-small-cell lung cancer, STS: soft-tissue sarcoma, CRC: colorectal cancer, OC: ovarian cancer, PC: pancreatic cancer, NHL: non-Hodgkin lymphoma, HCC: hepatocellular carcinoma, MM: multiple myeloma

Source: Clinical Cancer Res 2010;16:1701-1708. and Guggenheim Securities, LLC

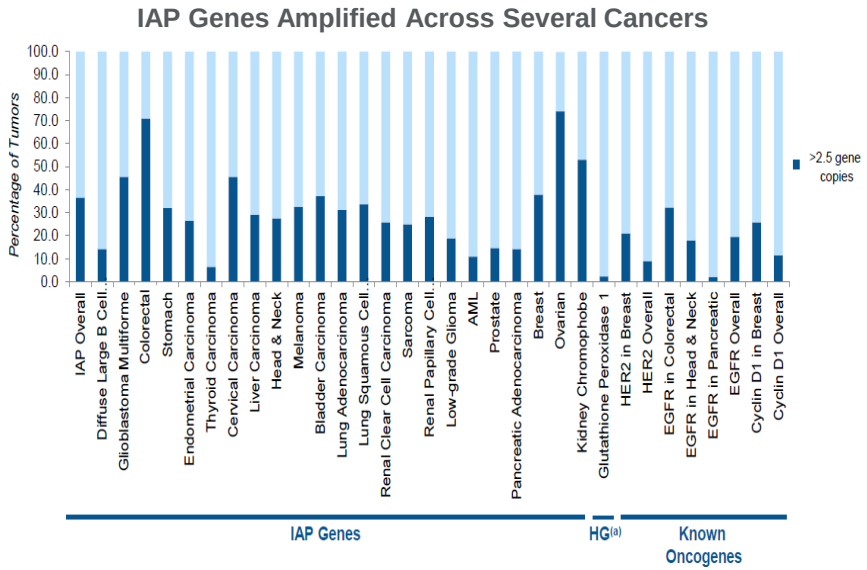
Birinapant Acts Synergistically with Conatumumab in OC Cell Line



Source: Company Documents and Guggenheim Securities, LLC

TLOG – Birinapant/TRAIL Agonist Combinations Have Substantial Strategic Value for TLOG

• **We believe the strategic value of birinapant+TRAIL agonists is underappreciated.** Because the OC program is early stage, we believe investors may overlook the potential NT strategic value of birinapant to AMGN or potentially other major pharmaceutical companies that have invested substantially in the development of TRAIL agonist mAbs, with currently no return on these investments. Based on this, we believe even early positive results for birinapant+conatumumab in OC could lead to an expansion of TLOG's collaboration with AMGN, including testing in other advanced tumor indications. Importantly, as TLOG's partnership with AMGN is non-exclusive (TLOG also has a preclinical collaboration with Daiichi), we expect elevated competition amongst TRAIL agonist developers to gain exclusive rights to birinapant-based combinations.



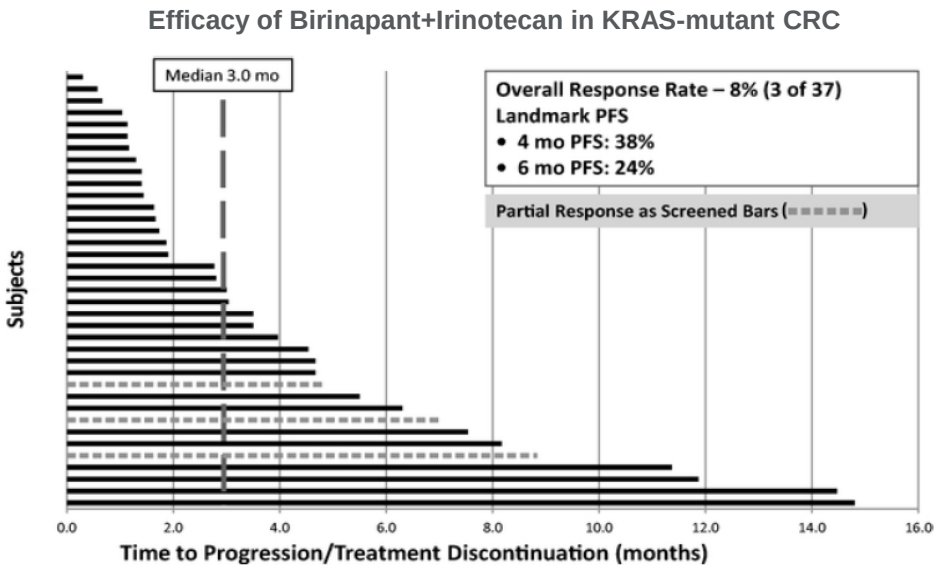
Source: Company Documents and Guggenheim Securities, LLC

• **Significant unmet medical need for new OC therapies.** OC is an aggressive cancer, with few effective treatments. We estimate there are ~22K new OC cases annually in the U.S., with one- and five-year survival rates of only 75% and 40%, respectively. The current standard of care for 1st-line OC includes surgery, if possible, followed by platinum-taxane chemotherapy, but the duration of response to these drugs is short and relapse is frequent. There are currently few standard 2nd- and later-line treatments, with a collection of chemotherapies (doxorubicin, topotecan, gemcitabine) generally showing poor, <20% response rates in historical testing.

• **In December '13, TLOG/AMGN initiated a Ph.I/II trial of birinapant+conatumumab in advanced epithelial OC (two prior therapies), fallopian tube cancer, or primary peritoneal cancer.** The open-label, non-randomized Ph.I portion of the trial will enroll ~30 patients (~18 in dose escalation cohort and ~12 in the dose expansion cohort). Although the primary objectives of the Ph.I portion of the trial are to determine the safety and optimal birinapant dosing with standard dose conatumumab, we see the potential for early signs of clinical activity when the initial results are reported in mid-'14. We believe even a small number of confirmed responses of PRs or CRs would be clinically important and partially confirm TLOG/AMGN's hypothesis regarding the combination. We believe this has the potential to be a major, near-term positive catalyst for TLOG.

TLOG – Birinapant Has Promise in mCRC Despite Delayed Development Timeline

• **TLOG has successfully completed a Ph.I/II trial of birinapant+irinotecan in advanced mCRC.** We believe results from the Ph.I/II trial showed birinapant+irinotecan had clinical benefit in advanced mCRC patients who had previously failed irinotecan-containing regimens and other interventions (median four prior treatments). There were partial responses (PRs) and prolonged progression-free survival (PFS) with the combination, despite an expectation that single-agent irinotecan would have very limited efficacy in this setting. Most notably, there was a high PR/PFS benefit among the 37 KRAS+ patients enrolled in the Ph.I/II trial, which we believe defines a very promising, and underserved, patient population for further clinical development of birinapant+irinotecan. Importantly, we believe the Ph.I/II results for birinapant+irinotecan compare favorably vs. Ph.III results for Bayer/AMGN's Stivarga (regorafenib), which is the current standard of care for advanced mCRC.



Source: Company Documents and Guggenheim Securities, LLC

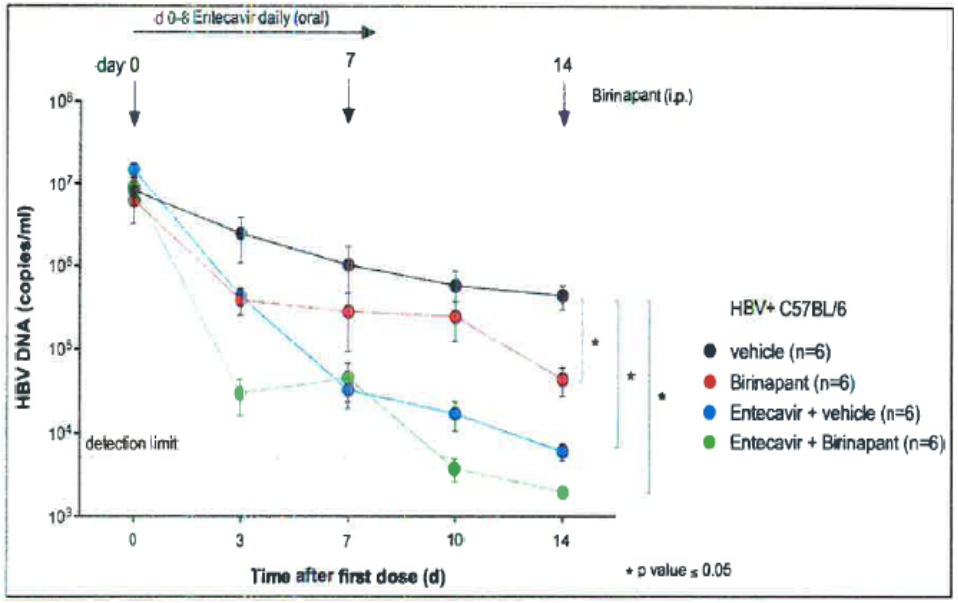
•**Ph.I/II safety results a key positive.** Importantly, birinapant was shown to have good tolerability with no signs of cumulative toxicity, which was the major development roadblock for 1st-generation SMAC mimetics. The drug showed no increase in irinotecan-related side effects or expected SMAC mimetic toxicities, other than Bell's Palsy (temporary facial paralysis), which was mitigated with gradual birinapant dose escalation. We note, however, that this non-life threatening side effect quickly resolves, and we believe it would not significantly hinder adoption of the drug in advanced cancers.

• **Additional resources needed to begin a Ph.II/III trial of birinapant+irinotecan in 3rd-line KRAS+ mCRC.** TLOG had previously planned to begin a randomized Ph.II/III trial of birinapant+irinotecan vs. single-agent regorafenib in '14, with an overall survival (OS) primary endpoint. Trial enrollment was to be focused on KRAS+ mCRC patients relapsed or refractory to irinotecan-based regimens, similar to the Ph.I/II trial. Although TLOG has placed this trial on hold, based on downsized IPO proceeds, we continue to believe the birinapant+irinotecan combination has longer-term potential in mCRC. Further, as it is likely that TLOG would focus on KRAS+ mCRC in future development, we believe birinapant would have favorable regulatory status with the FDA/EMEA, given the very poor treatment options for this subset of patients.

TLOG – Birinapant in HBV; Entrenched Competition Likely Limits Market Opportunity

• **Pre-clinical studies of birinapant+entecavir in HBV show promising safety/efficacy and differentiated mechanism of action.** There are currently no antiviral drugs on the market that specifically target IAPs to induce apoptosis in virally infected cells. In a mouse model of HBV, birinapant showed accelerated clearance of HBV infected cells. Further, in other pre-clinical studies combining birinapant with BMY's Baraclude (entecavir), the combination showed superior clearance of HBV infected cells vs. either agent alone. Notably, birinapant decreased HBV surface antigen levels while entecavir did not, suggesting birinapant has a differentiated antiviral mechanism of action. Consistent with the drug's anti-cancer mechanism, the HBV preclinical models showed that TNF is required for birinapant's efficacy.

Clinical Activity of Birinapant+Entecavir in HBV



Source: Company Documents and Guggenheim Securities, LLC

• **Crowded market will likely pose a challenge for birinapant in HBV.** With several drugs already on the market for HBV, including nucleoside analogues like GSK's Epivir (lamivudine) and NVS's Tyzeka (telbivudine) and nucleotide analogues such as GILD's Hepcera (adefovir) and Viread (tenofovir), we believe birinapant would face significant entrenched competition in this setting. Despite this, TLOG plans to begin a Ph.I trial to evaluate birinapant 's HBV antiviral activity in 4Q14, with results ~2Q15. As the trial will be very inexpensive to conduct, we do not view this a significant negative for TLOG.

TLOG – D.C. Scorecard

Overall Score: Net Positive (3.6 Average)

SUBCATEGORY & SCORE	COMMENTS	
FDA Standing: **Positive- 5**	• **We believe TLOG has an established track record of success with the FDA's ODAC, based primarily on senior management's experience at Cephalon. We view this as a key positive for the company and for the regulatory trajectory of birinapant.**	• **We believe the FDA has shown clear openness to accelerated approval of drugs for hematologic cancers, such as MDS, based on surrogate endpoints such as response rate. As such, we see the potential for accelerated U.S. approval of birinapant, particularly if TLOG is successful in defining prognostic biomarkers for response to the drug, such as NF-kB activity.**
Medicare/Medicaid Reimbursement: **Neutral- 3**	• We believe TLOG's birinapant would likely be reimbursed under Medicare Part B, which we believe is somewhat favorable for oncology drugs compared to Part D.	
ACA Impact: **Net Positive- 4**	• **We believe the ACA will eventually bring a number of new patients under coverage who are not yet Medicare eligible, which should benefit TLOG commercially to a certain extent. However, we note that that average age of onset of MDS, birinapant's lead indication, is approximately 65 yrs, which we believe skews the target population for the drug to Medicare eligibles.**	
Generics: **Neutral- 3**	• Although TLOG is focused on developing small molecule drugs, like birinapant, we believe the company is positioned adequately vs. potential generics. In the U.S., birinapant is covered by a composition of matter patent and method of use patents expiring in the range of March 2026 to June 2030.	
D.C. Presence: **Neutral- 3**	• We are not aware of any current D.C. presence for TLOG, which is not surprising given the company's stage of development. However, we believe the company's management has the experience necessary to gain key D.C. access as the company matures to commercial stage.	

TLOG – Income Statement (2012-2019E)

TetraLogic Pharmaceuticals

Amounts in thousands, except per-share figures	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E
Income Statement								
Revenues:								
Collaboration Revenue	-	-	3,400	4,500	4,750	8,120	11,111	14,300
Birinapant Revenue- MDS (1)	-	-	-	-	-	-	21,767	84,588
Total operating revenue	**-**	**-**	**3,400**	**4,500**	**4,750**	**8,120**	**32,878**	**98,888**
Operating expenses:								
Cost of goods	-	-	-	-	-	-	-	3,384
Research & development	12,096	13,911	15,302	16,832	25,248	27,773	28,884	30,906
Selling, general & administrative	4,076	5,298	9,007	16,213	25,941	31,129	56,032	57,153
Total operating expenses	**16,172**	**19,209**	**24,309**	**33,045**	**51,189**	**58,902**	**84,916**	**91,442**
Income (Loss) from operations	**(16,172)**	**(19,209)**	**(20,909)**	**(28,545)**	**(46,439)**	**(50,782)**	**(52,038)**	**7,447**
Net Interest/Other (expense)	(28)	(2,900)	(500)	(455)	37	200	1,473	2,031
Change in fair value of derivative liabilities	43	(1,400)	-	-	-	-	-	-
Interest/Other income	3	0	500	45	37	200	1,800	3,300
Interest Expense	(73)	(1,500)	(1,000)	(500)	-	-	-	-
Royalty to Princeton		-	-	-	-	-	(327)	(1,269)
Pretax income (loss)	**(16,199)**	**(22,109)**	**(21,409)**	**(29,000)**	**(46,402)**	**(50,582)**	**(50,564)**	**9,478**
Income tax provision (benefit)	-	-	-	-	-	-	-	-
Net income (loss)	**(16,199)**	**(22,109)**	**(21,409)**	**(29,000)**	**(46,402)**	**(50,582)**	**(50,564)**	**9,478**
Preferred stock dividends	(3,453)	(2,950)	-	-	-	-	-	-
Basic & diluted net loss per share	**($1.19)**	**($1.19)**	**($0.91)**	**($1.05)**	**($1.50)**	**($1.45)**	**($1.18)**	**$0.21**
Basic & diluted common shares outstanding (2)	16,490	21,117	23,579	27,565	31,027	34,772	42,968	45,116

(1) Probability adjusted estimates.

(2) Reflects conversion of preferred stock to common stock.

Source: Company Documents and Guggenheim Securities, LLC

TLOG – Balance Sheet (2012-2019E)

TetraLogic Pharmaceuticals

Amounts in thousands, except per-share figures	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E
Balance Sheet								
Current assets:								
Cash and cash equivalents	4,512	46,276	23,961	39,116	38,418	38,154	95,092	61,296
Short-term investments	-	-	-	-	-	-	-	-
Prepaid expenses and other current assets	129	129	129	129	129	129	129	129
Restricted cash	20							
Total current assets	**4,661**	**46,405**	**24,090**	**39,245**	**38,547**	**38,283**	**95,221**	**61,425**
Property and equipment, net	172	124	193	344	555	680	1,191	1,267
Investments, net of current portion	-	-	-	-	-	-	-	-
Accounts receivable	-	-	-	-	238	406	1,644	4,944
Other assets	54	-	-	-	-	-	-	-
Total assets	**4,887**	**46,529**	**24,283**	**39,590**	**39,339**	**39,369**	**98,056**	**67,636**
Current liabilities:								
Accounts payable	1,145	1,153	1,215	1,322	1,536	1,178	849	881
Accrued expenses	1,610	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Convertible notes payable, net	-	3,000	1,500					
Derivative liabilities	97							
Other								
Deferred revenues								
Total current liabilities	**2,852**	**3,653**	**3,715**	**3,822**	**4,036**	**3,678**	**3,349**	**3,381**
LT Debt	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Other LT liabilities	30	30	30	30	30	30	30	30
Total Liabilities	**2,882**	**3,683**	**3,745**	**3,852**	**4,066**	**3,708**	**3,379**	**3,411**
Commitments:								
Series A convertible preferred stock, $0.0001 par value	7,848							
Series B convertible preferred stock, $0.0001 par value	14,788							
Series C convertible preferred stock, $0.0001 par value	36,856							
Series C-1 convertible preferred stock, $0.0001 par value	5,920							
Stockholders' equity (deficit)								
Common stock, $0.0001 par value; 186.1M shares at 12/310/12	19	2	2	3	3	3	4	5
Additional paid-in capital	71,908	112,917	90,008	104,508	103,107	102,625	202,161	211,739
Accumulated other comprehensive income (loss)	-							
Deficit accumulated during the development stage	(69,922)	(77,243)	(78,015)	(78,795)	(79,583)			
Other	-	7,170	8,542	10,022	11,747	(66,968)	(107,489)	(147,517)
Total stockholders' equity (deficit)	**2,005**	**42,847**	**20,538**	**35,738**	**35,274**	**35,661**	**94,677**	**64,226**
Total liabilities, redeemable convertible preferred stock and stockholders' equity (deficit)	**4,887**	**46,529**	**24,283**	**39,590**	**39,339**	**39,369**	**98,056**	**67,636**

Source: Company Documents and Guggenheim Securities, LLC

TLOG – Cash Flow Statement (2012-2019E)

TetraLogic Pharmaceuticals

Amounts in thousands, except per-share figures	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E
Statement of Cash Flows								
Operating activities								
Net (loss) income	(16,199)	(22,109)	(21,409)	(29,000)	(46,402)	(50,582)	(50,564)	9,478
Adjustments to reconcile net loss to net cash used in operating activities:								
Depreciation and amortization	154	154	111	173	309	497	610	1,068
Accretion to debt discount	41							
Issuance of common stock to a university	-							
Equity compensation expense	351	300	300	300	300	300	300	300
Change in fair value of warrant liabilities	(43)	-	-	-	-	-	-	-
Loss on disposal of fixed assets	-	-	-	-	-	-	-	-
Non-cash interest expense	36	300	300	300	300	300	300	300
Changes in operating assets and liabilities								
Accrued personel-related expenses	317	100	-	100	100	100	100	100
Accounts payable, accrued expenses and other liabilities	(584)	7	63	106	214	(358)	(329)	31
Net cash used in operating activities	(15,928)	(21,248)	(20,635)	(28,020)	(45,179)	(49,742)	(49,584)	11,277
Investing activities								
Purchases of property and equipment	(29)	(106)	(180)	(324)	(519)	(623)	(1,121)	(1,143)
Restricted cash	-	-	-	-	-	-	-	-
Purchase of short-term investments	-	-	-	-	-	(5,000)	(42,458)	(44,029)
Maturity of short-term investments	5,526					5,000		
Net cash used in investing activities	5,497	(106)	(180)	(324)	(519)	(623)	(43,578)	(45,172)
Financing activities								
Proceeds from notes payable, net	-	-	-	-	-	-	-	-
Proceeds from exercise of stock options	2	68	-	-	-	100	100	100
Proceeds from convertible notes payable, net	4,969	20,000	-	-	-	-	-	-
Proceeds from issuance of convertible preferred stock, net	-	-	-	-	-	-	-	-
Payments on notes payable and capital leases	(34)	(50)	(1,500)	(1,500)	-	-	-	-
Net proceeds from issuance of common stock/restricted common stock		43,100		45,000	45,000	50,000	150,000	-
Net cash provided by financing activities	4,936	63,118	(1,500)	43,500	45,000	50,100	150,100	100
(Decrease) increase in cash and cash equivalents	(5,494)	41,764	(22,315)	15,155	(698)	(265)	56,938	(33,795)
Cash and cash equivalents at beginning of period	10,006	4,512	46,276	23,961	39,116	38,418	38,154	95,092
Cash and cash equivalents at end of period	**4,512**	**46,276**	**23,961**	**39,116**	**38,418**	**38,154**	**95,092**	**61,296**
Free Cash Flow	(10,431)	(21,353)	(20,815)	(28,345)	(45,698)	(50,365)	(93,162)	(33,895)

Source: Company Documents and Guggenheim Securities, LLC

Public Companies Mentioned in this Report (priced as of 1/3/14)

Amgen, Inc. (AMGN, NEUTRAL, $114.47)

Bayer (BAYN.DE, NC, $100.80)

Celgene Corp. (CELG, BUY, $169.81)

Curis, Inc. (CRIS, NC, $2.94)

Daiichi Sankyo (DSNKY, NC, $18.26)

Debiopharm S.A. (Private, NC)

Gilead (GILD, BUY, $74.32)

GlaxoSmithKline (GSK, NC, $52.80)

Novartis (NVS, NC, $79.11)

Pfizer (PFE, NC, $30.52)

Roche (RHHBY, NC, $69.61)

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Guggenheim Securities, LLC makes a market in the securities or derivatives thereof.

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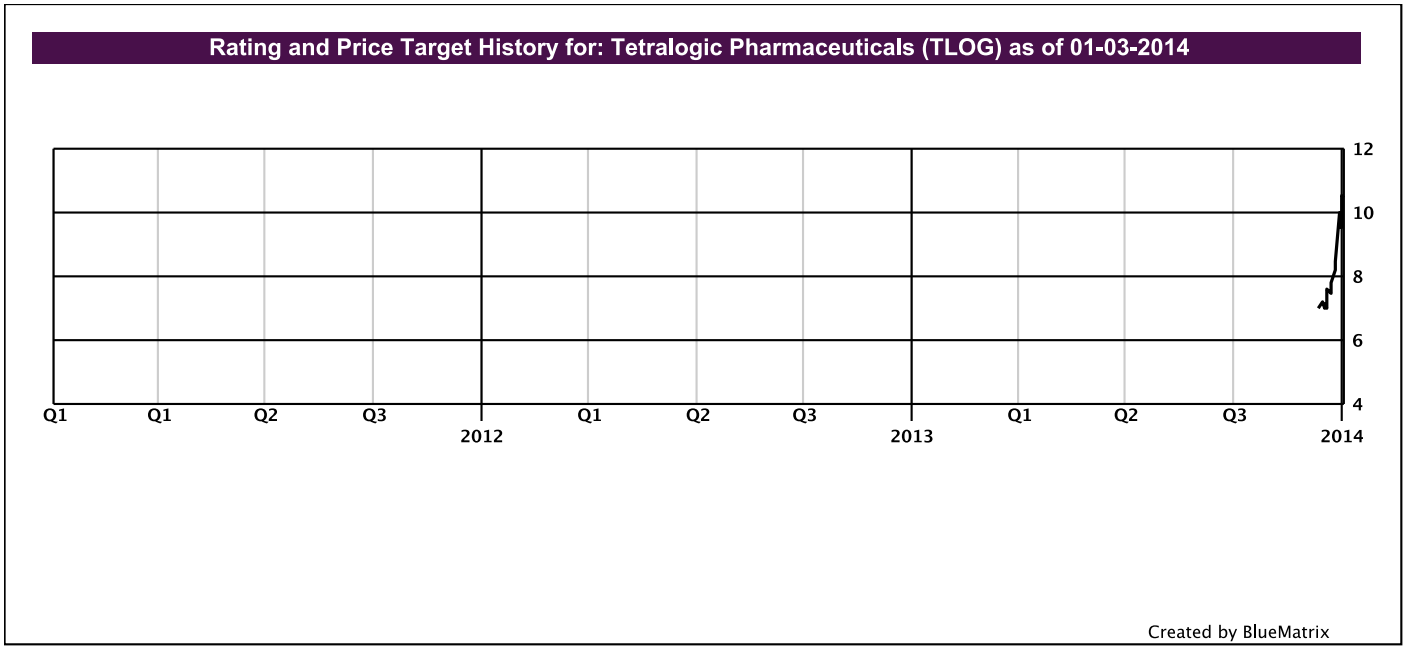


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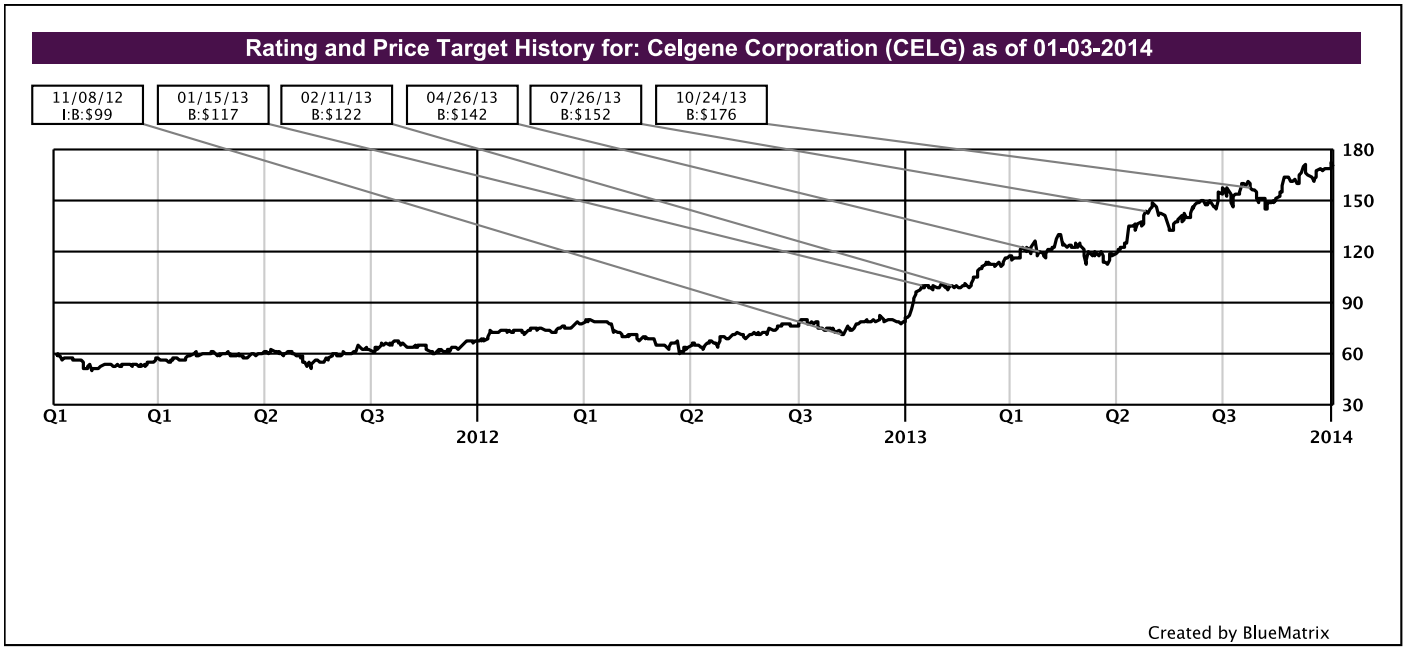
Rating and Price Target History for: Celgene Corporation (CELG) as of 01-03-2014
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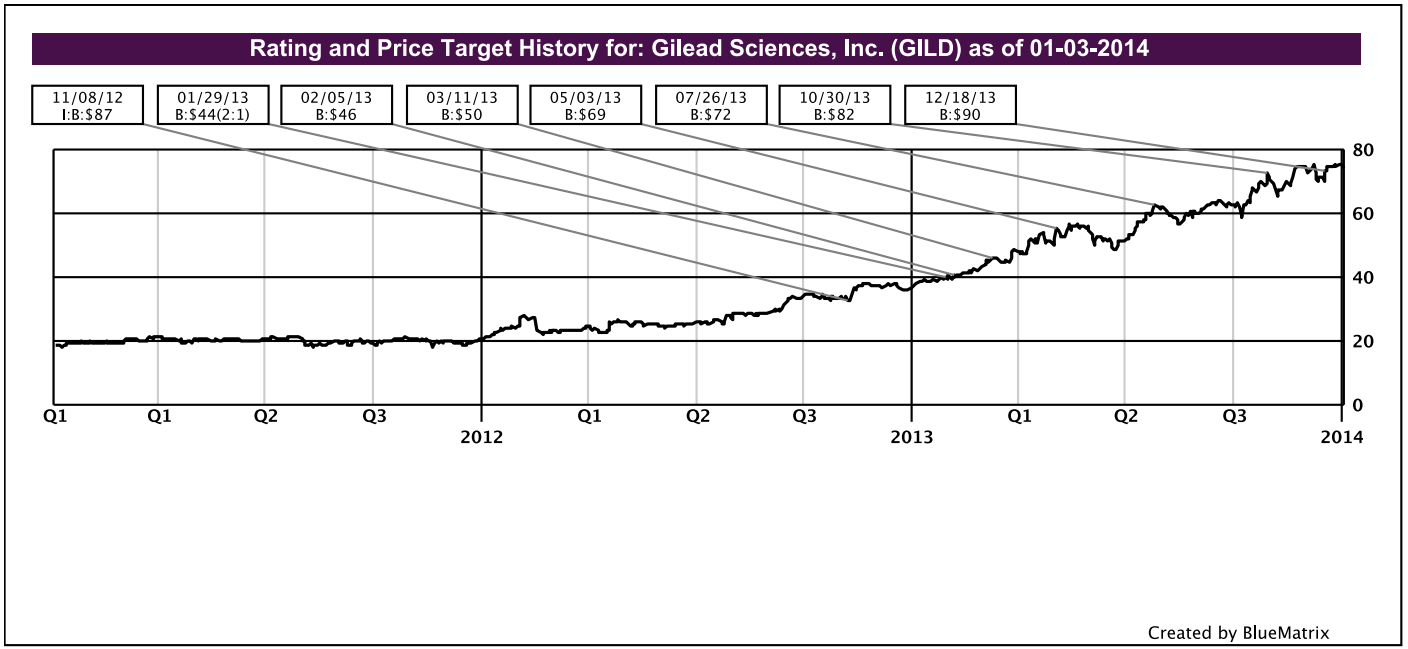

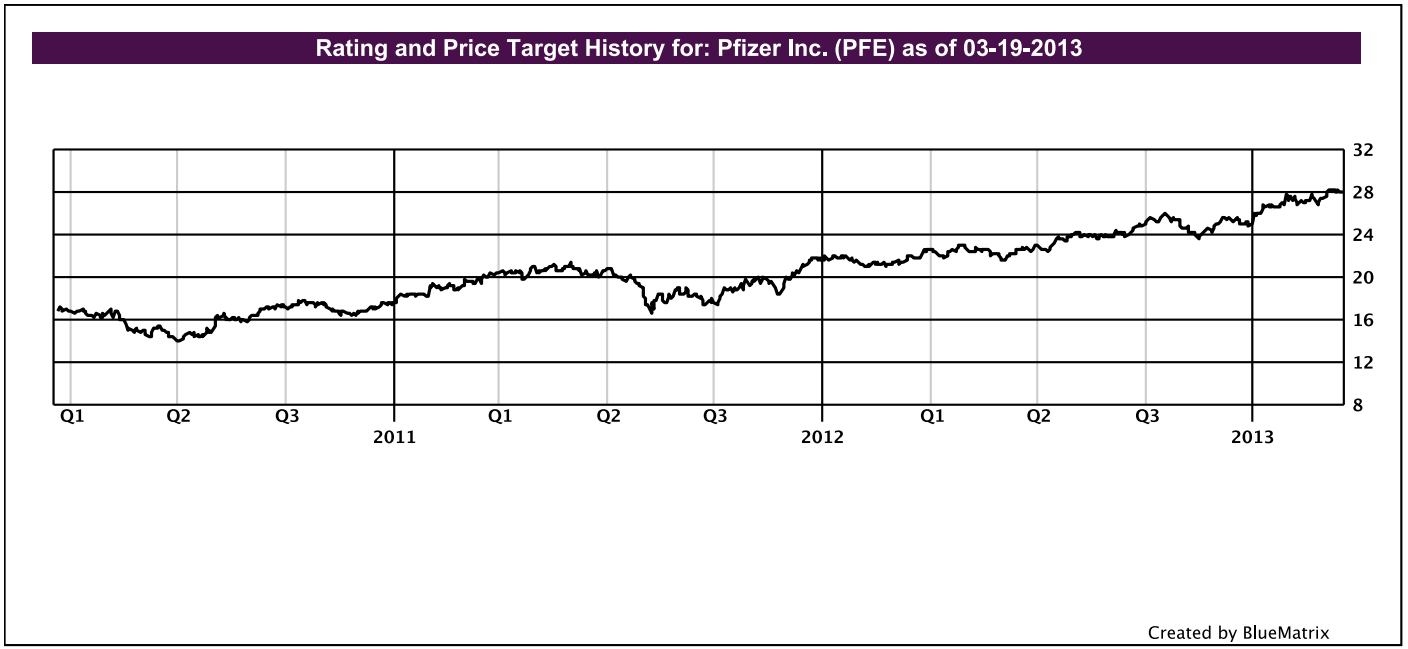

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BUY (B) - Describes stocks that we expect to provide a total return (price appreciation plus yield) of 15% or more within a 12-month period.

NEUTRAL (N) - Describes stocks that we expect to provide a total return (price appreciation plus yield) of plus 15% or minus 15% within a 12-month period.

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			IB Serv./ Past 12Mos.	
Rating Category	Count	Percent	Count	Percent
Buy				
Neutral				
Sell				

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