CHAIN BRIDGE RESEARCH
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EURO MERGER REPORT

20 February 2018

Deal Terms
1 TIG BB = €1.78

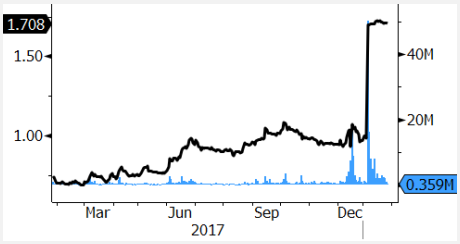
Target: TiGenix

Country	Belgium
Bloomberg	TIG BB
Sector	Biotech
Share price (€)	1.73
Market cap (€m)	505
Free float (%)	~69

Acquirer: Takeda

Country	Japan
Bloomberg	4502 JT
Sector	Large Parma
Share price (JPY)	6545
Market cap (JPYbn)	5,177
Free float (%)	~96

Price Chart



Status
Notification to FSMA – February 15, 2018

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TiGenix (TIG BB) / Takeda (4502 JT)

Update

The risk-reward appears to be attractive, therefore we recommend long TIG.

We believe that the key risk to the deal closing is the European Commission granting the marketing authorization for Cx601.

Talking to EMA

- EMA confirmed to us that it is "the European Commission and not EMA who makes the final decision on granting a marketing authorization for a drug."
- "Until now, no medicine that obtained a positive CHMP recommendation was subsequently refused marketing authorisation by the European Commission."
- However, she highlighted that, "a number of marketing authorisation applications have actually been withdrawn after the CHMP issued a positive recommendation and before the European Commission could make a decision on the marketing authorization." (see the table in the report)

CBR view: Based on the nature of Cx601 and its safety profile we see it as unlikely that TIG will have to withdraw Cx601 from EC's marketing authorization. Based on precedents, most of the withdrawals are in connection with cancer related drugs although diabetes, allergic symptom treatment, insomnia were also among indications.

Timeline

We see early May deal closure (Co est.: H1 2018).

- European Commission's decision on marketing authorization of Cx601 is expected by March 26, 2018.
    - TiGenix expects the decision from the EC within 67 days of the COMP decision.

Update to key conditions

There is an adverse-event clause with impact of >EU15m on TiGenix NAV.

- We note that based on the 2016 annual report the first anticipated milestone is €15m upon obtaining the Marketing Authorization of Cx601 in the European Economic Area.
    - Upcoming data (beyond Cx601) is expected to be available in 2019 for Cx611. For AlloCSC-01 we are not aware of any upcoming catalysts.

Deal closing probability

- We estimate an implied deal closing probability of ~95% assuming deal closure by early May 2018 and downside to €1.00.

CBR view: Downside on a deal break is massive (~42%). Since our first recommendation the spread somewhat tightened (implied deal closing probability was 92%) we still believe that the implied probability of deal closing is still somewhat low. We continue to recommend a position long TIG and tender into Takeda's offer.

Timeline

• CHMP opinion	December 15, 2017
• Deal Announcement	January 5, 2018
• Cx601 Orphan Drug Designation by COMP (X)	January 16-18, 2018
• Notification to FSMA	February 15, 2018
• HSR filing	By end of January 2018
• Other regulatory approvals filed	By end of January 2018
• Tender offer starts	By end of February 2018
• Regulatory approvals in place	By early March 2018
• Tender offer ends (min 20 BD)	By mid-March 2018
• Final Commission Decision on marketing authorization of Cx601 (X+67 days)	By March 26, 2018
• Tender offer ends (max 10 weeks)	By end of April 2018
• Result of the tender offer (within 5 BD)	By end of April 2018
• Second acceptance period ends (10BD)	By mid-May 2018
• Settlement (within 10BD)	By early May 2018

Update

DISCUSSION WITH EMA

- In our discussion with EMA the drugs in the table were mentioned where marketing authorisation applications actually were withdrawn after the CHMP issued a positive recommendation and before the European Commission making a decision.

Drug	Indication	Links	
		Letter	Q&A
Desloratadine Krka (desloratadine)	The applicant initially applied for the indication "to relieve allergy symptoms" whereas the indication approved for the reference product is "relief of symptoms associated with: allergic rhinitis and urticaria".	Link	Link
Egranli (balugrastim)	Reduction in the duration of neutropenia and the occurrence of febrile neutropenia in adult cancer patients	Link	Link
Folcepri (etarfolatide)	"This medicinal product is for diagnostic use only. After radiolabelling with sodium pertechnetate (99mTc) solution, Folcepri is indicated, after intravenously administered folic acid, for single photon emission computed tomography (SPECT) imaging, in combination with Computed Tomography (CT) or Magnetic Resonance Imaging (MRI), for the selection of adult patients for treatment with vintafolide, a folate receptor (FR) targeted therapeutic for use in ovarian cancer".	Link	Link
Ibandronic Acid Hexal (ibandronic acid)	Ibandronic acid Sandoz is indicated in adults for the prevention of skeletal events (pathological fractures, bone complications requiring radiotherapy or surgery) in patients with breast cancer and bone metastases.	Link	Link
Lunivia (eszopiclone)	The applied indication for Lunivia is for the treatment of insomnia, including difficulty falling asleep, nocturnal awakening or early awakening, in adults, usually for short term duration.	Link	Link
Neocepri (folic acid)	Neocepri was designated as an orphan medicinal product in the following indication: Diagnosis of positive folate receptor in ovarian cancer. The applicant applied for the following indication: This medical product is for diagnostic use only. Neocepri is administered prior to Folcepri, a folate receptor (FR) targeted radiodiagnostic imaging agent. Neocepri is indicated for the enhancement of Folcepri single photon emission computed tomography (SPECT) image quality.	Link	Link
Pioglitazone ratio (pioglitazone)	Ratio-Pioglitazone is indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus in multiple clinical settings. Important Limitations of Use Ratio-Pioglitazone exerts its antihyperglycemic effect only in the presence of endogenous insulin. The applicant applied for the following indication: "Pioglitazone is indicated in the treatment of type 2 diabetes mellitus: **as monotherapy** in adult patients (particularly overweight patients) inadequately controlled by diet and exercise for whom metformin is inappropriate because of contraindications or intolerance **as dual oral therapy in combination with** metformin, in adult patients (particularly overweight patients) with insufficient glycaemic control despite maximal tolerated dose of monotherapy with metformin Pioglitazone is also indicated for combination with insulin in type 2 diabetes mellitus adult patients with insufficient glycaemic control on insulin for whom metformin is inappropriate because of contraindications or intolerance		
Pioglitazone ratiopharm (pioglitazone)			
Pioglitazone ratiopharm GmbH (pioglitazone)			
Pioglitazone Teva Generics (pioglitazone)		Link	Link

Ratioepo (epoetin theta)	Treatment of symptomatic anaemia associated with chronic renal failure in adult patients. Treatment of symptomatic anaemia in adult cancer patients with non-myeloid malignancies receiving chemotherapy	Link	Link
Vynfinit (vintafolide)	"Vynfinit in combination with pegylated liposomal doxorubicin (PLD) is indicated for the treatment of adult patients with platinum resistant ovarian cancer (PROC) who express the folate receptor (FR) on all target lesions. Folate receptor status should be assessed by a diagnostic medicinal product approved for the selection of adult patients for treatment with vintafolide, using single photon emission computed tomography (SPECT) imaging, in combination with Computed Tomography (CT) or Magnetic Resonance Imaging (MRI)". Vynfinit is to be prescribed by physicians experienced in chemotherapy treatment.	Link	Link

Source: EMA, CBR

Key terms of the offer – Updated adverse-event clause and timetable

Transaction Details	
Announcement Date	January 5, 2018
Offer terms	1 TIG = €1.78
% owned by TIG stockholders	0%
Deal Size (Market Value)	€526m
Offer structure	All cash tender offer
Target's Board Recommendation	Yes
Voting Agreement	Yes Gri-Cel S.A., holding 32,238,178 TiGenix shares, and its affiliate Grifols Worldwide Operations Ltd., holding 7,189,800 TiGenix shares held in the form of American Depositary Shares, have irrevocably confirmed that they will tender their shares and American Depositary Shares held in TiGenix into the potential public takeover bid.
Target Incorporation	Belgium
Tender offer document	N.A.
Synergies	■ Hasn't been mentioned

Indicated Closing Date

- CBR estimation: By end of April/early May 2018

Dividends

- TIG never paid dividend

Financing

- Funding from existing cash balances

TIG capitalization	
■ **TIG Equity**	■ Total shares outstanding of the target company of 274,287,190 as reported on November 30, 2017
■ **TIG Debt**	At the end of June 2017 TIG had 56.5m cash and cash equivalents
■ **TIG Net Leverage**	N.A.

Valuation Multiples	
■ **1-day premium**	~81%
■ **LTM EV/Sales**	19.0x
■ **FY1 EV/Sales**	409.1x
■ **FY2 EV/Sales**	25.9x
■ **LTM P/E**	N.A.
■ **FY1 P/E**	N.A.
■ **FY2 P/E**	N.A.
■ **FY1 EV/EBITDA**	N.A.
■ **FY2 EV/EBITDA**	N.A.

Timetable - Updated	
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Key conditions to the offer - Updated	
■ **Minimum acceptance level**	■ Yes, 85% or more of the voting rights represented or given access to by all of the outstanding securities on a fully diluted basis as of the end of the first acceptance period,
■ **No Company MAC**	Yes: ■ the absence of a material adverse effect occurring at any time after 5 January 2018, which is defined in the Offer and Support Agreement entered into between the Bidder and TiGenix on 5 January 2018 (the "Agreement") as any state of facts, circumstance, condition, event, change, development, occurrence, result or effect (each an "Effect") that, individually or in the aggregate with any one or more other Effects, has resulted or would reasonably be expected to result (in the latter case, insofar as this probability is confirmed by an independent expert) in a loss or liability for TiGenix and its subsidiaries (the "TiGenix Group"), taken as a whole, having a negative impact of more than fifteen million euro (EUR 15,000,000) (after taxes) on the consolidated net assets of TiGenix (whether such Effect materialises before, on or after the completion of the Bid), MAC carveouts: ■ (A) changes in IFRS, GAAP or any other applicable accounting standards or the official interpretation thereof; ■ (B) changes in the financial or securities markets or general economic, regulatory or political conditions in Belgium, Spain, the USA or Japan; ■ (C) changes of any federal, state or local law (statutory, common or otherwise), constitution, treaty, convention, ordinance, code, rule, regulation, order, injunction, judgment, decree, ruling or other similar requirement enacted, adopted, promulgated or applied by any foreign, domestic, federal, territorial, state or local governmental authority, quasi-governmental authority, instrumentality, court, government or selfregulatory organization, commission, tribunal or organization or any regulatory, administrative or other authority, body or agency, or any political or other subdivision, department or branch of any of the foregoing which has or claims to have competent jurisdiction over the relevant person or its business, property, assets or operations, or stock exchange or similar body, that is binding upon such party, as amended unless expressly specified otherwise; or the official interpretation thereof affecting the existing business operations of the TiGenix Group or changes of conditions affecting the geographical markets in which the members of the TiGenix Group operate; ■ (D) acts of war, sabotage or terrorism, hurricanes, floods, wildfires, tornados, earthquakes or other natural disasters or acts of God involving Belgium, Spain, the USA or Japan; ■ (E) the announcement of the transaction or the completion of the Bid, including the impact thereof on relationships, contractual or otherwise, with customers, suppliers, vendors, lenders, investors, licensors, licensees, venture partners or employees (excluding certain key employees, other than any such key employee who voluntarily terminates his/her employment relationship with any member of the TiGenix Group) of the TiGenix Group (otherwise than through a breach of the Agreement by any member of the TiGenix Group); ■ (F) any failure by any member of the TiGenix Group to meet any internal or published budgets, projections, forecasts or predictions of financial performance for any period, including any decline in the price of, or variation in the trading volume of, any securities issued by any member of the TiGenix Group (otherwise than through a breach of the Agreement by any member of the TiGenix Group); ■ (G) any action taken (or omitted to be taken) at the written request of the Bidder; ■ (H) any action omitted to be taken by TiGenix that requires the written consent of the Bidder pursuant to the Agreement to the extent that the Bidder fails to give its reasonable consent thereto after a written request therefor pursuant to the terms of the Agreement; ■ (I) any action taken by any member of the TiGenix Group that is required pursuant to the Agreement; ■ (J) any change, event, occurrence or development relating to the products or product candidates of the TiGenix Group (without prejudice to the requirement to satisfy the condition in (iii) below (marketing authorization), unless waived by the Bidder); and ■ (K) any breach of the Agreement by the Bidder.
■ **Cx601 obtaining marketing authorization in the E.U. from the European Medicines Agency (EMA)**	■ Yes
■ **Regulatory approvals**	■ Yes, HSR

Back end transaction

■ Following closing of the potential voluntary public takeover bid, Takeda intends to launch a squeeze-out if the applicable conditions for such squeeze-out are met to delist the shares of TiGenix from Euronext Brussels and NASDAQ. After the squeeze-out, TiGenix would become a wholly-owned subsidiary of Takeda.

- The Belgian legislation contains two types of squeeze-out procedures following a takeover bid which should be clearly distinguished: follow-on squeeze-out and sell-out.
- Follow-on squeeze-out – squeeze-out can be launched by the bidder if it holds, alone or in mutual agreement, further to the bid or a re-opening of the bid, 95% of the share capital conferring voting rights and 95% of the voting securities in the target. In such case, the bidder can re-open the bid and force the remaining minority shareholders to sell their voting rights securities or securities giving entitlement to voting rights under the same conditions applicable to the offer, provided it obtained 90% of the share capital conferring voting rights of the target in the course of the bid. A minimum stake of 5% is thus necessary to frustrate a squeeze-out launched by a bidder further to takeover and to prevent such bidder from acquiring 100% of the shares in the target.
- Sell-out – a new feature of the Public Takeovers Legislation is that, if as a result of a public takeover bid or a re-opening, the bidder alone or in mutual agreement, holds 95% of the share capital conferring voting rights and 95% of the voting securities in the target, the securities holders are entitled to sell their securities to the bidder at the same price as the offer price, provided that the bidder obtained 90% of the share capital conferring voting rights of the target in the course of the bid. The securities holders must notify their intention to sell to the bidder within ninety days following the end of the offer period.

According to a SEC filing

- There is no obligation to tender securities. In the event Takeda obtains 95% or more of the TiGenix shares and at least 90% of the TiGenix shares covered by the takeover bid, then it could undertake a squeeze out process in which it could force the remaining security holders to tender their securities to Takeda.
- Following closing of the potential voluntary public takeover bid, Takeda intends to launch a squeeze-out if the above conditions for such squeeze-out are met and delist the shares of TiGenix from Euronext Brussels and Nasdaq. After the squeeze-out, TiGenix would become a wholly-owned subsidiary of Takeda.
- One of the conditions for the offer to be consummated is Takeda obtaining at least 85% of the outstanding voting rights on a fully diluted basis. If Takeda reaches at least 85% and assuming that the other conditions for the bid will be met, the bid will be consummated and any securities that have not been tendered to Takeda will remain outstanding. Shares and ADRs not tendered to Takeda will remain listed on Euronext and Nasdaq respectively, unless Takeda de-lists such securities later on or the relevant listing criteria are not met.
- In the event Takeda obtains less than 85% of the voting rights, then it is entitled to waive the 85% condition and nevertheless consummate the bid. Any securities that will not have been tendered to Takeda will remain outstanding.

Governing Law

Belgian

Key TIG shareholders

Person subject to the notification requirement	Number of voting rights declared in transparency notification (1)	% of voting rights at time of transparency notification (2)	% of voting rights (simulation) based on current denominator (3)
Takeda Pharmaceutical Company Limited/Grifols, S.A.	51,079,756	18.62%	17.28%
Grifols S.A. / Gri-CEL S.A.	34,188,034	19.84%	14.18%(4)
Sand Grove Capital Management	19,173,231	6.99%	6.49%
Bank of America Corporation	14,492,601	5.28%	4.90%
Cormorant Asset Management	11,756,894	5.81%	4.85%(5)
Melqart Asset Management LP	12,870,000	4.69%	4.35%
Takeda Pharmaceutical Company Limited/ Takeda Pharmaceuticals International AG	11,651,778	4.48%	3.94%
Philippe ODDO	8,723,784	3.18%	2.95%
BNP Paribas Investments Partners SA	6,650,503	3.75%	2.25%
Others		**27.36%**	**38.81%**

(1) Number of shareholders notified at the time of the transparency notification; these numbers can currently be different (it being understood that a new transparency notification is required when a relevant threshold is crossed).
(2) Percentages based on (a) the number of shares notified at the time of the transparency notification and (b) the total number of outstanding shares at the time of the transparency notification.
(3) Percentages based on (a) the number of shares notified at the time of the transparency notification, but (b) the current total number of outstanding shares.
(4) This percentage also takes into account 7,741,920 shares purchased in the form of ADSs in the US IPO.
(5) This percentage also takes into account 2,580,640 shares purchased in the form of ADSs in the US IPO.

Source: Bloomberg

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