



FENNEC PHARMA

**Corporate
Presentation**

April 2016

Safe Harbor Statement

During the course of this presentation we will make statements that constitute forward-looking statements. These statements may include operating expense projections, the initiation, timing and results of pending or future clinical trials, the actions or potential action of the FDA, the status and timing of ongoing research, corporate partnering activities and other factors affecting Fennec Pharma's financial condition or operations. Such forward looking statements are not guarantees of future performance and involve risk, uncertainties and other factors that may cause actual results, performance or achievements to vary materially from those expressed or implied in such statements. These and other risk factors are listed from time to time in reports filed with the SEDAR and the Securities and Exchange Commission, including but not limited to, reports on Forms 10-Q and 10-K. Fennec does not intend to update any forward looking information to reflect actual results or changes in the factors affecting forward-looking information.

Company Overview

- **US based biopharmaceutical company focused on the development of Sodium Thiosulfate (STS) for the prevention of platinum-induced ototoxicity in children with cancer**
 - **Granted FDA Orphan Drug Designation – 7.5 years market exclusivity**
 - **Potential for European Market Exclusivity for Pediatric Use – 10 years upon approval**
- **STS has completed enrollment of two Phase 3 trials**
 - **COG Study ACCL0431: 131 patients with heterogeneous tumors**
 - **Achieved primary efficacy endpoint – ASCO 2014**
 - **SIOPEL 6: 109 patients with standard risk hepatoblastoma**
 - **Reported positive interim safety review – ASCO 2015**
- **STS has the potential to fill a significant unmet medical need with no approved treatments on market or in development**

Platinum-based Chemotherapy

Cisplatin

- **Cisplatin, a.k.a. “penicillin of cancer” first introduced in the 1970s and subsequently demonstrated high efficacy in the treatment of variety of pediatric tumors**
- **Despite the approval of new chemotherapy treatments, targeted agents and immunotherapy drugs, cisplatin still finds wide use, as stand-alone or as a valuable part of a combination chemotherapy regimen**
- **Cisplatin can cause irreversible high frequency hearing loss, or ototoxicity in children**
- **Ototoxicity is permanent and irreversible**
- **As high survival rates for childhood cancers have been achieved, there is a growing need for pediatric practitioners to offer health care surveillance for the long-term effects of chemotherapy, including cisplatin-induced ototoxicity, in primary care settings**

Platinum Hearing Loss is Frequent, Severe and Irreversible

Each year in US and EU ~7000 children receive platinum based chemotherapy for localized cancers, where overall survival is greater than 80%

At least 60% develop profound irreversible ototoxicity*

- Ototoxicity is a dose-limiting side effect
- Effect can be seen after as little as the second or third dose
- Loss of high frequency hearing sensitivity (consonants /f/th/p/k/h/t)
- Background noise compounds disability in critical settings
- Infants and young children at critical stage of development, lack speech language development and literacy
- Older children & adolescents lack social-emotional development and educational achievement



Devastating and life long impact on Quality of Life

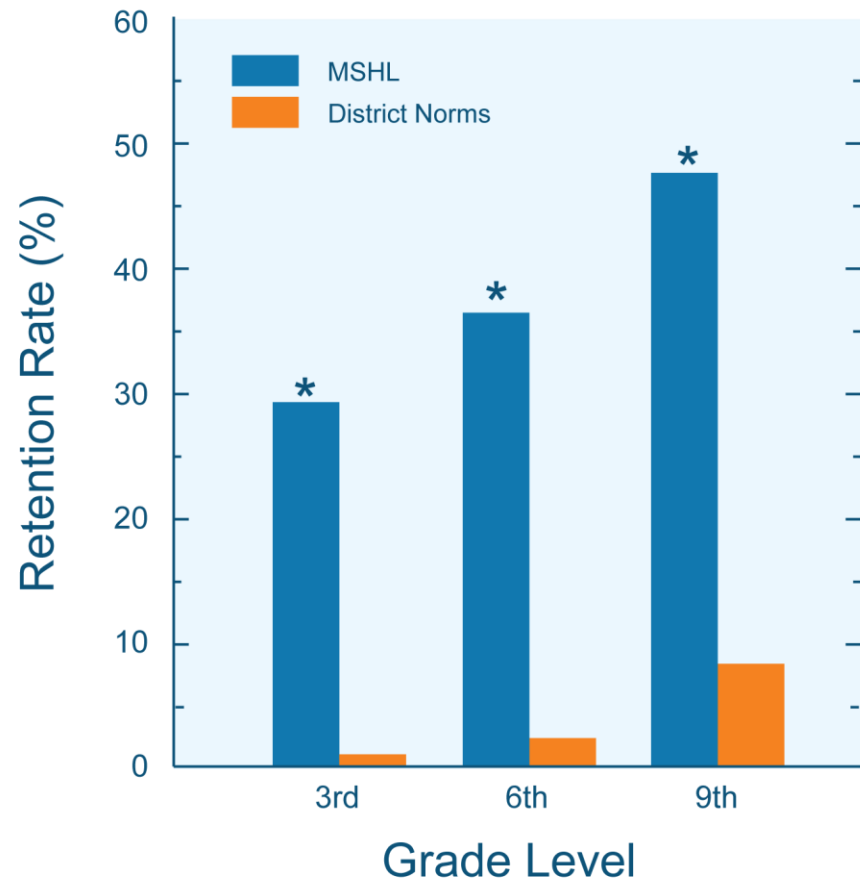
Devastating Impact on Quality of Life

Even minimal hearing loss (MSHL) is damaging

- High risk for being held back a grade (37% versus 3%)

Neuroblastoma survivors with hearing loss

- Twice the rate of parent reported problems with reading, math, attention and need for special education
- Poorer child-reported quality of life and school functioning

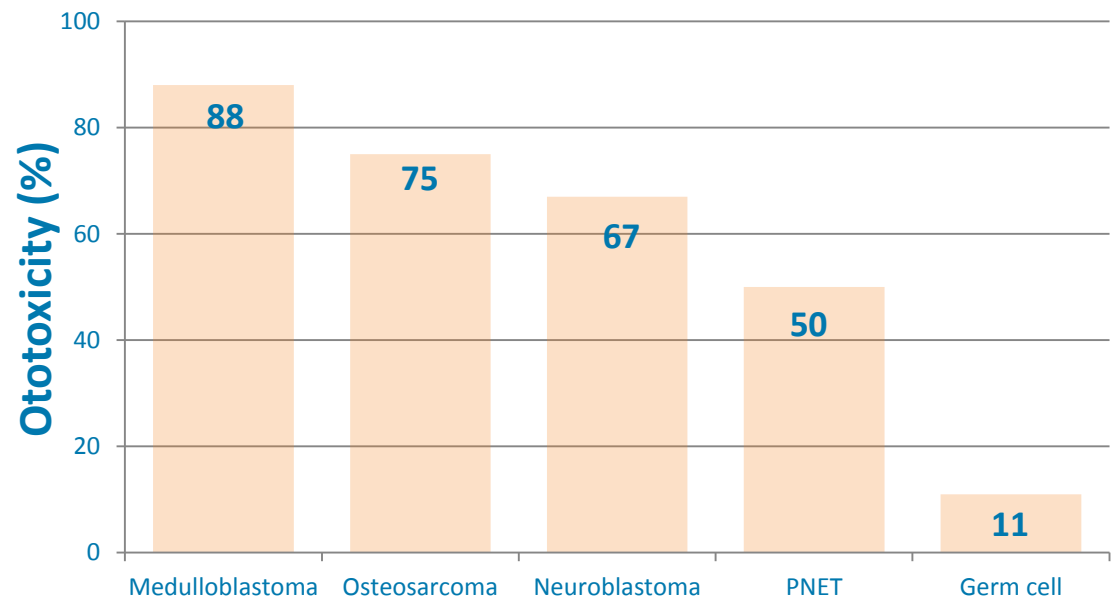


*Bess et al., Ear and Hearing, 1998, 19:339-54

*Gurney et al., Pediatrics, 2007 120(5):229-36

Ototoxicity in Children Treated with Cisplatin and/or Carboplatin*

- 61% bilateral hearing loss (ASHA criteria) at the end of treatment
- 41% required hearing aids that only partially restore hearing
- 22% of patients had dose reductions due to ototoxicity
- N=67 age 8 m -20 years



*Gilmer-Knight et al., Journal of Clinical Oncology, 2005, 23:8588-96

Sodium thiosulfate (STS)

Indication

- Approved in US and some EU countries for the treatment of cyanide poisoning

Mechanism of Action*

- STS is a competitive inhibitor of cisplatin: STS reacts irreversibly with cisplatin to form $\text{Pt}(\text{S}_2\text{O}_3)$ which is not cytotoxic and is readily excretable
- Inactivation of protein-bound platinum complexes causing ototoxicity in the inner ear
- Anticancer activity of cisplatin occurs during the first two hours after administration when the free (unbound) cisplatin distributes into the cancer cells

Drug Delivery

- STS is administered 6 hours post cisplatin infusion in a bolus dose iv over 15 min

Toxicology

- STS is generally recognized as safe (GRAS in US)

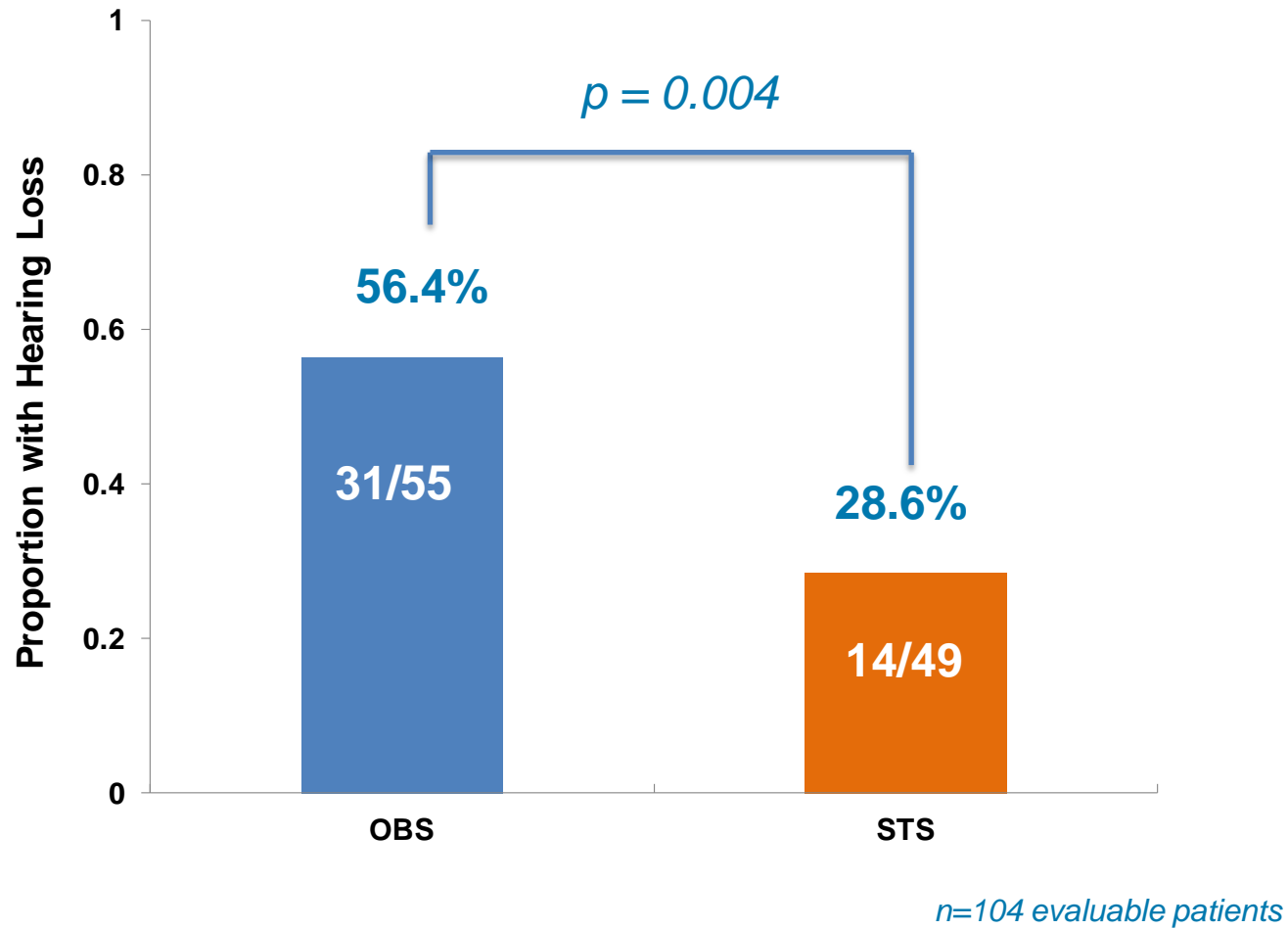
* Howell and Taetle 1980; Neuwelt, Brummett et al. 1996

COG ACCL0431 (ASCO 2014)

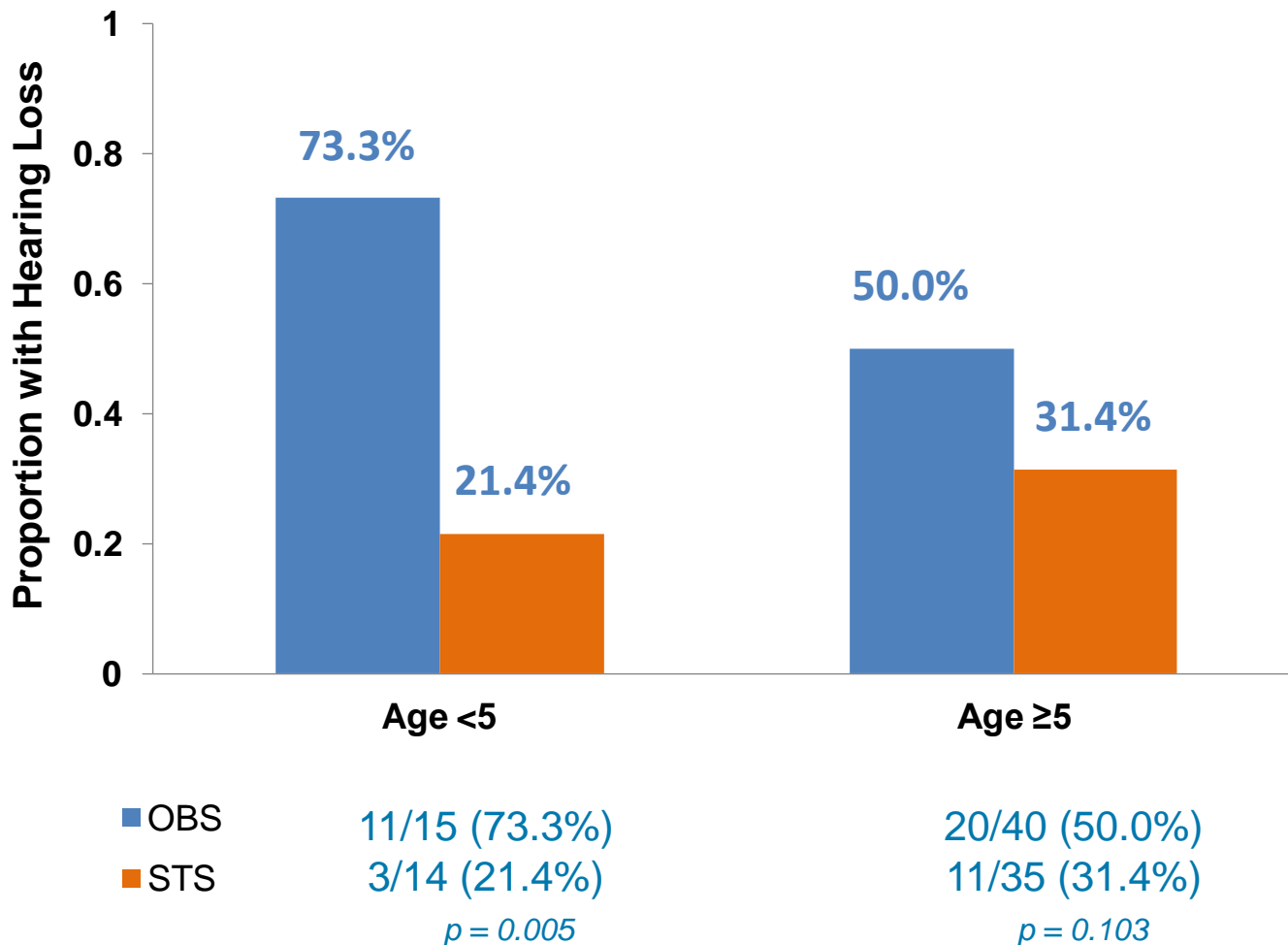
Objectives, Population, Dosing

- Randomized study of STS for prevention of cisplatin-induced hearing loss in children - newly diagnosed children with, germ cell tumor, osteosarcoma, neuroblastoma, medulloblastoma, hepatoblastoma, and others
- 131 randomized patients with local and metastatic disease
- Study Chair: David Freyer, DO, MS
- Objective – powered to detect 50% relative reduction in hearing loss
- Study completed in 1Q 2012 with data presented at ASCO 2014
- Patients ranged from 1-18 years with any malignancy treated with cisplatin at a planned cumulative dose of $\geq 200\text{mg/m}^2$
- Dosing Schedule:
 - Disease specific chemotherapy regimen containing cisplatin followed by STS 16g/m^2 IV infusion 6 hours post cisplatin dose
 - Disease specific chemotherapy regimen containing cisplatin without STS

Hearing Loss By Randomized Arm

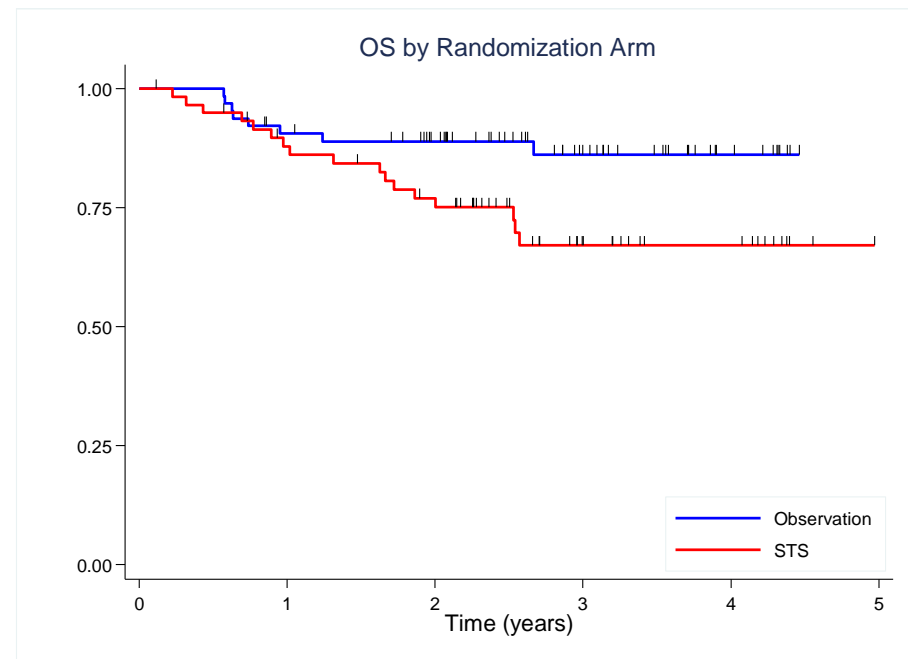
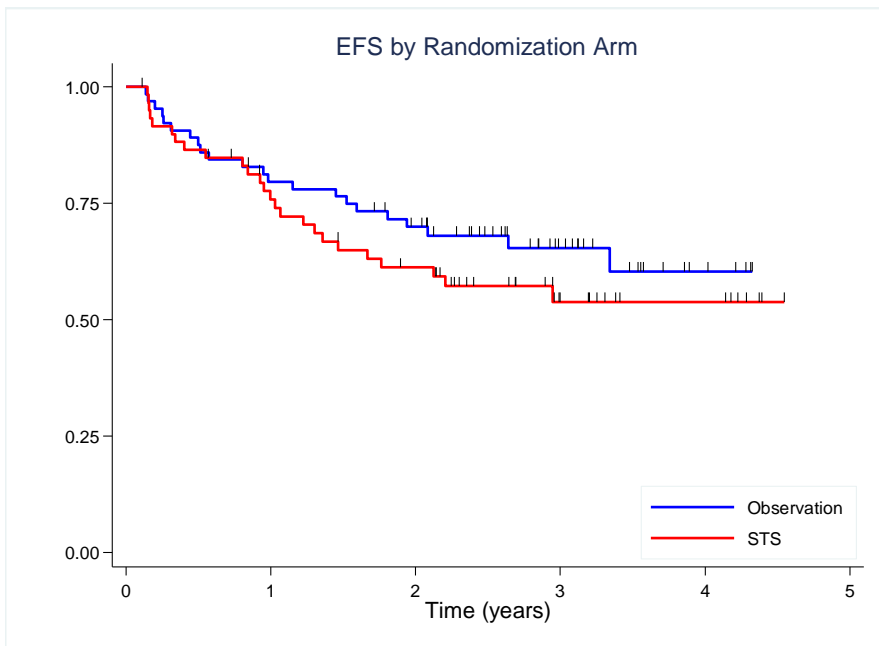


Hearing Loss By Randomized Arm and Age



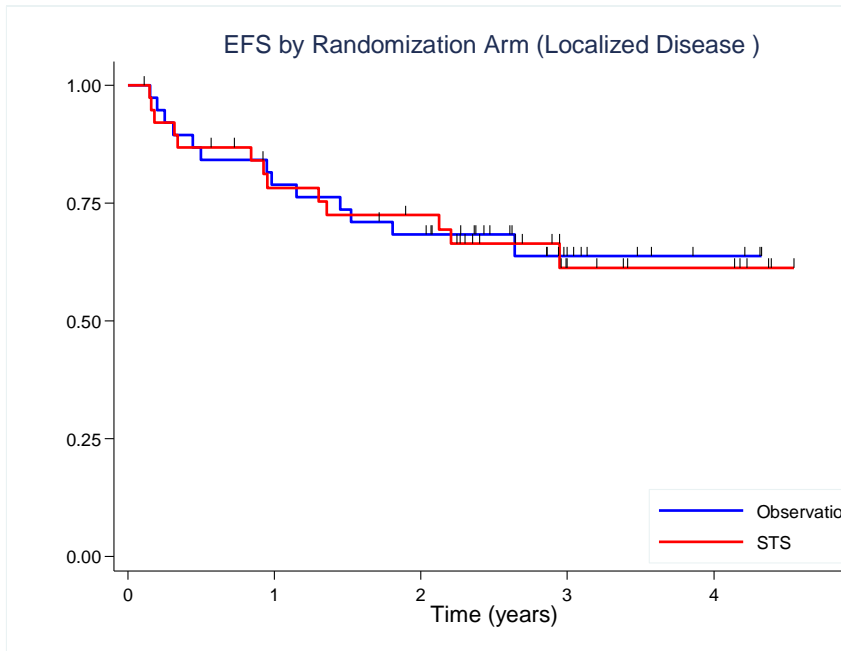
EFS/OS by Randomization Arm

All Patients, n=126 at median f/u of 2.9 yrs

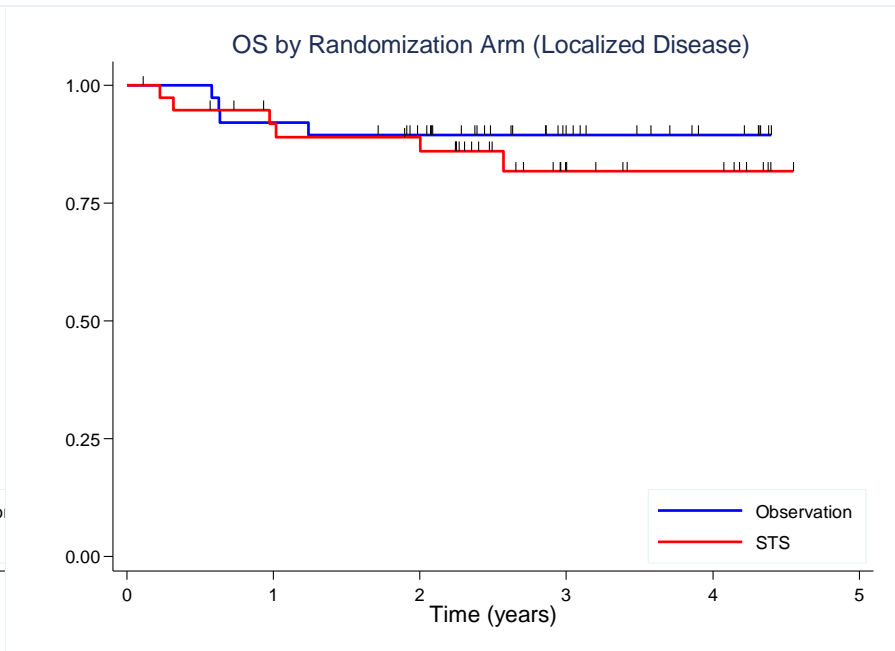


EFS/OS by Randomization Arm

Localized Disease Only, n=78



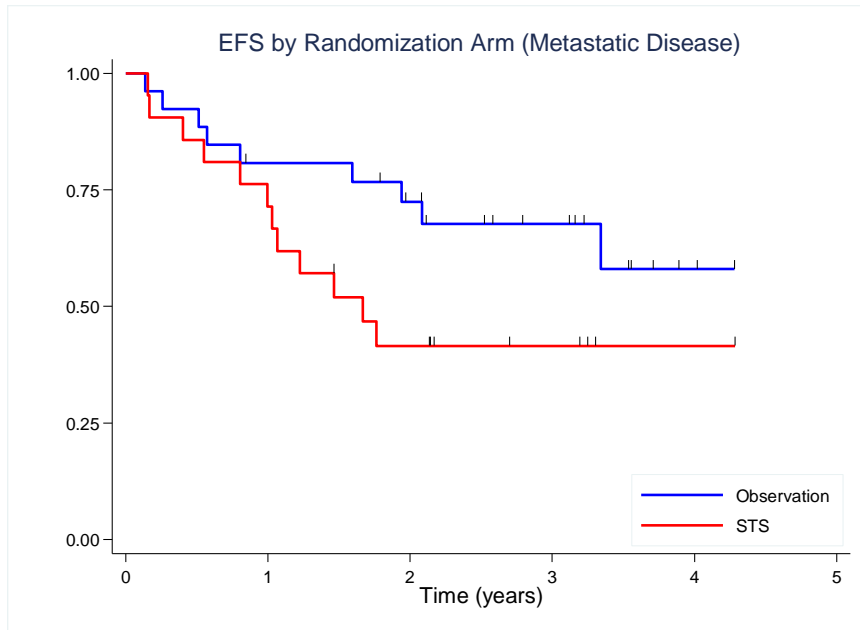
Log Rank $p = 0.94$



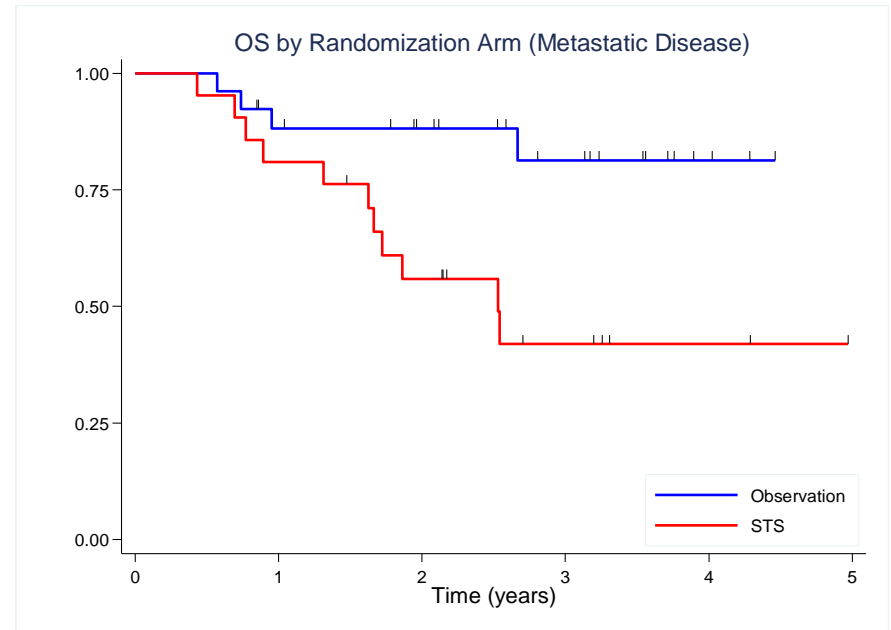
Log Rank $p = 0.48$

EFS/OS by Randomization Arm

Disseminated Disease Only, n=47



Log Rank $p = 0.085$



Log Rank $p = 0.011$

COG ACCL0431: Conclusions

- **STS protects against cisplatin-induced hearing loss in children**
- **Conclusions on the risk of tumour protection by STS in children treated with cisplatin confounded due to:**
 - **Heterogeneity of the population**
 - **Various diseases and tumor stages**
 - **Heterogeneity of chemotherapy regimens in addition to cisplatin**
 - **Imbalances between prognostic groups**
 - **Protocol amendment to include other tumors**
 - **Missing information: doses of cisplatin, concomitant treatments, timing of administration of STS after the last cisplatin dose**

SIOPEL 6 (ASCO 2015)

Objectives, Population, and Endpoints

Objectives

- To assess the efficacy of STS to reduce the hearing impairment caused by Cisplatin in SR-HB
- To carefully monitor any potential impact of STS on response (protocol pre-specified IDMC tumour response review at 20, 40, 60, 80 and 100 patients) to Cisplatin and overall survival

Study population

- Children 1 month–18 years old with histologically confirmed newly diagnosed SR-HB, PRETEXT I, II or III, serum AFP > 100 µg/L
- First patient in the study enrolled in 2007, last patient in Dec 2014

Primary endpoint

- Centrally reviewed absolute hearing threshold, at the age of ≥ 3.5 yrs, by pure tone audiometry, graded by Brock criteria
- 80% power to detect 60% vs. 35% hearing loss

Secondary endpoints: response, resection, EFS, OS and long term renal function

SIOPEL 6 (ASCO 2015)

Preliminary Chemotherapy Efficacy

Tumor Response		CIS N=52	CIS+STS N=57
Status at end of treatment	Complete Response	44 (84.6%)	52 (91.2%)
	Partial Response	3 (5.8%)	4 (7.0%)
	Progressive Disease	2 (3.9%)	0
	Died ⁽¹⁾	1 (1.9%)	0
	Not Available	2 (3.9%)	1 (1.8%)
Status at last follow up (May 2015)	Complete Response	48 (92.3%)	52 (91.2%)
	Partial Response	1 (1.9%)	3 (5.3%)
	Died	3 (5.8%)	1 (1.8%)
	Not Available	0	1 (1.8%)

4 patients randomized to CIS+STS did not receive STS due to logistical problems. (1) Patient died from surgical complications

19 patients received between 1 and 6 courses of doxorubicin (CIS:9; CIS+STS:10)

SIOPEL 6 (ASCO 2015)

Preliminary Conclusions

- Study is fully enrolled with 109 evaluable patients
- To date, safe to treat SR-HB with six cycles of cisplatin monotherapy with the delayed administration of STS
- Response rate to 4 cycles of pre-operative chemotherapy and the status at end of treatment are comparable
- Number of children developing progressive disease or receiving doxorubicin is equivalent
- Efficacy results (primary endpoint of hearing loss) expected in 2017 when all children have reached 3.5 years of age
 - Protocol pre-specified first interim analysis on 34 patients in January 2015: IDMC recommended continuation of the trial
 - Protocol pre-specified second interim analysis on 68 patients: planned in the first half of 2016
 - Early stopping criteria met if p value of < 0.0168

STS: Development Strategy

EVENT	TIMING
FDA Type C Clinical Development Meeting ✓	Mar 2011
Presented to Pediatric ODAC ✓ ODAC recognized challenge of demonstrating STS does not reduce efficacy of cisplatin and agreed adult study would not be appropriate	Nov 2011
COG ACCL0431 Phase 3 Clinical Data ✓	Jun 2014
SIOPEL 6 Phase 3 Final Interim Safety Analysis (N=100)✓	Feb 2015
SIOPEL 6 Phase 3 Safety and End of Treatment Anti Tumor Efficacy Results ✓	May 2015
SIOPEL 6 Phase 3 Primary Endpoint Interim Efficacy Results (N=68)	H1 2016
FDA & EMA Regulatory Development Meetings	2016
NDA/MAA Submissions	TBD

Capital Structure and Share Information

Stock Listings	FRX – TSX, Canada FENCF – OTCQB, USA
Current Share Price	USD \$1.83
Shares Outstanding (millions)	11.0
Market Cap. (millions)	USD \$20.1
Warrants (millions)	1.3 with USD \$1.50 exercise price (Nov. 22, 2018) 0.4 with USD \$3.60 exercise price (Dec. 3, 2016)
Insider Ownership	Approx. 10% fully diluted
Cash@ December 31, 2015	USD \$0.9 million with no debt
2015 Cash Burn	USD \$1.5 million
Institutional Ownership	Southpoint Capital – 36%; Manchester Mgmt – 16%; 683 Capital – 8%

Board of Directors and Management

Dr. Khalid Islam – Chairman, Director

- Chairman and CEO at Gentium S.p.A. - sold to Jazz Pharma for \$1 billion.

Adrian Haigh – Director

- Currently SVP and General Manager PTC Therapeutics. Previously COO at Gentium S.p.A. - sold to Jazz Pharma for \$1 billion.

Chris Rallis – Director

- Previously President & COO of Triangle Pharmaceuticals - sold to Gilead for \$500 million.

Steve Skolsky – Director

- Currently Global Head of Site Management at Quintiles. Previously President and CEO of Sequoia Pharmaceuticals and CEO of Trimeris.

Rosty Raykov – CEO

Robert Andrade – CFO

Anne McKay – Regulatory Affairs

Franck Rousseau, MD – Development Advisor

Lei Fang – Biostatistics

Mark Gowland – Controller

Lex Smith – Pharmaceutical Development

Roy Swaringen – Chemical Development

STS Investment Highlights

- **US Orphan Drug Designation (7.5 years market exclusivity)**
- **Potential for European Market Exclusivity for Pediatric Use (10 years)**
- **Completed enrollment of two Phase 3 trials**
- **COG Phase 3 trial achieved primary endpoint for hearing**
- **SIOPEL 6 Phase 3 trial reported no adverse outcomes of STS plus Cisplatin vs. Cisplatin alone**
- **Significant unmet medical need with no approved treatment on market or in development**
- **Fennec has exclusive regulatory rights to data from both studies**
- **Well positioned to initiate discussions with US & European regulators once hearing data is available from SIOPEL 6**