

# CHOSA

## Intelligent Oncology

A clinical stage company

Listed on Spotlight after reverse merger 11.1.2023 with RhoVac AB

CHOSA is financed for 18 months

**CHOSA.ST**

▪

## iCIP

### CHOSA's key product

A major upgrade of Cisplatin – a cornerstone drug in oncology

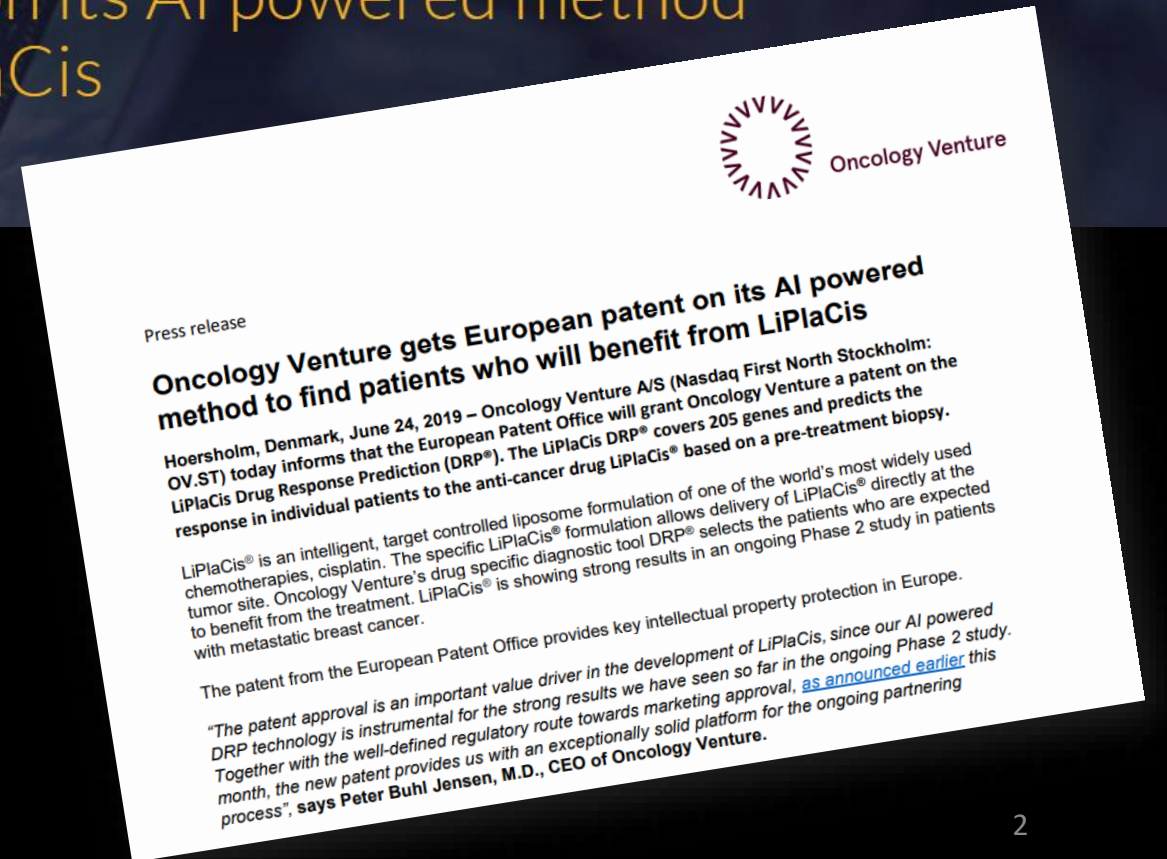
Incorporates two precision oncology technologies to improve efficacy & reduce side-effects

Positive Phase 2b results

◀ Back to Overview

# Oncology Venture gets European patent on its AI powered method to find patients who will benefit from LiPlaCis

24.06.2019



## Precision Oncology

will transform  
cancer treatment

**Improving efficacy**

**Reducing side-effects**

## Cisplatin

A pillar of cancer treatment

\$ 1.3 billion in annual revenues  
and still growing

But limitations with respect to  
efficacy and toxicity

iCIP upgrades cisplatin via  
two clinically-validated  
precision oncology technologies



### Drug Response Predictor

DRP®

Proprietary AI developed  
RNA analysis tool  
Identifies patients that will  
benefit from iCIP

### Advanced Liposomes LiPlaCis®

Directly target the tumor  
Better response  
Less toxicity

## Strong team

Built oncology  
ventures to exit



Developed oncology  
drugs to market

- ✓ **iCIP shows improved efficacy and reduced side-effects vs. cisplatin**
- ✓ Phase IIb data ready to publish
- ✓ Breakthrough designation opportunity
- ✓ Strong IP (to 2038)

New targeted low tox  
liposomal cisplatin  
**ONLY** treating the  
patients who will  
benefit from cisplatin

# CHOSA's team



**Peter Buhl Jensen (CEO)** 35 years' experience in clinical cancer therapy & serial entrepreneur. Founder/CEO of TopoTarget A/S (IPO 2005); founder/CEO of Oncology Venture (IPO 2015). Developed Savene (EU approval 2006, FDA 2007) & Belinostat (FDA approval 2014). Chief Oncologist at Rigshospitalet (2000-08) and Aalborg Univ. Hospital (2010-11). MD, DMSc. More than 120 peer reviewed papers on oncology drug dev.



**Neil Goldsmith (Chair)** Serial entrepreneur with broad experience of the life science sector over 35 years. Founder/key early roles in Evolva (IPO Zurich), TopoTarget (IPO Copenhagen), Biotage (IPO Stockholm), PNAD (trade sale), BIAcore (IPO NASDAQ), Scientific Generics (IPO LSE). Chair, Alentis AG (liver fibrosis); board member, Unibio plc (protein from methane); Sundew (diseases of water). BA Zoology, Oxford University.



**Ulla Hald Buhl (Operations & IR)** 25 years in biotech. Co-founder of 3 companies including Oncology Venture & Cessatech. Key role in multiple IPOs and management of 3 listed companies in Denmark & Sweden. Major role in 2 marketing approvals of oncology drugs from the FDA and EMA. C-level positions for over 15 years. Diploma in Health Care Administration from The University of Southern Denmark. Bachelor in Nursing.



**Claus Pedersen (CFO)** 25+ years in strategy consulting, CxO and board positions, and start-ups. CFO, Oncology Venture (and CEO of Oncology Venture US) 2017-20. CEO, ECCO Sko in Northern Europe (2013-18) and partner in strategy consulting company Qvartz, now Bain & Company (2003-13). Extensive sales and business development experience.



**Knut Terje Smerud (Clinical development)** Ex-medical director at Lilly and Bayer. Founded Smerud Medical Research Group (2004). Executive board positions in several Scandinavian biotech companies. Managed c. 200 clinical trials, authored 60 clinical study reports. Biochemist by training and graduate of the Norwegian school of management. Conducted clinical trials on LiPlaCis.



2

Oncology drugs developed & launched **Savene/Totect** and **Beleodaq**

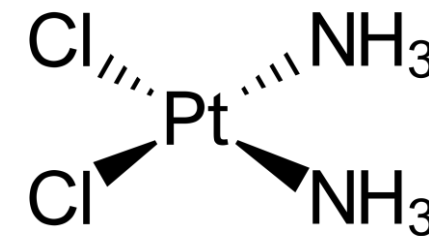
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Exits (IPOs or Trade Sales)

# iCIP is a major upgrade of a cornerstone oncology drug

## Cisplatin

- Cisplatin is one of the most widely-used chemotherapeutics (annual sales \$1.3 B)
- Cisplatin used in >16 tumor types including: Lung, Bladder, Ovary, Breast, Esophagus, Head & Neck. For many cancers, **cisplatin is as important as surgery and irradiation.**
- More than 4,300 clinical trials that include cisplatin on [clinicaltrials.gov](https://clinicaltrials.gov).
- Despite many new anticancer drugs, there is no prospect of cisplatin being replaced.
- Indeed, use of cisplatin is **increasing**, in particular because it improves the utility of many new immuno-oncology drugs



## But it has drawbacks

- Efficacy of 20-60% depending on cancer type
- A tough toxicity profile

**No cisplatin response prediction on market**

**No liposomal cisplatin on market**

## It is these drawbacks that iCIP overcomes

- **DRP is the first ever tool to precisely identify** patients that respond to cisplatin
- **LiPlaCis** delivery of cisplatin directly to the tumor is **more effective** and **less toxic**

# About the iCIP DRP technology

# The value of predictive oncology - Herceptin

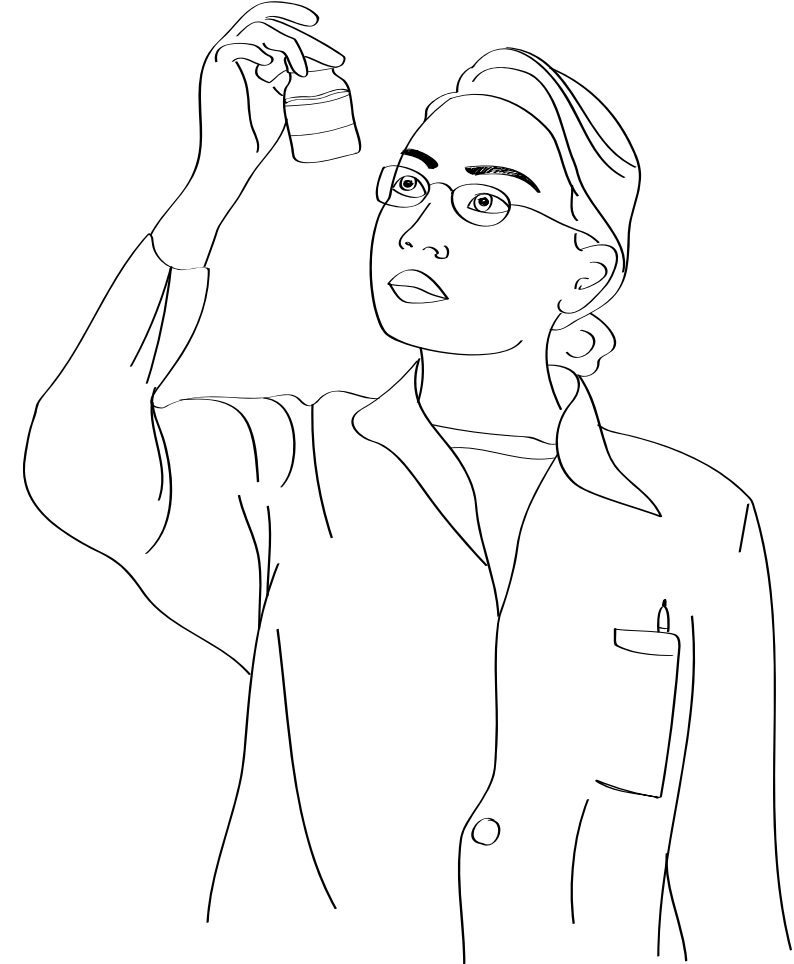
**20% of breast cancer patients have the HER2 gene**

**The drug Herceptin® significantly increases the chance of survival of such patients**

but has no benefit on patients who are not HER2 +ve

**By measuring HER2 gene expression the right patients can be selected for treatment with Herceptin**

**This has also made Herceptin® a major commercial success - lifetime sales exceed €88B**





# The iCIP AI developed Drug Response Predictor (DRP)

As with Herceptin, Cisplatin works on only a minority of cancer patients

Unlike Herceptin, there is no single gene that determines this

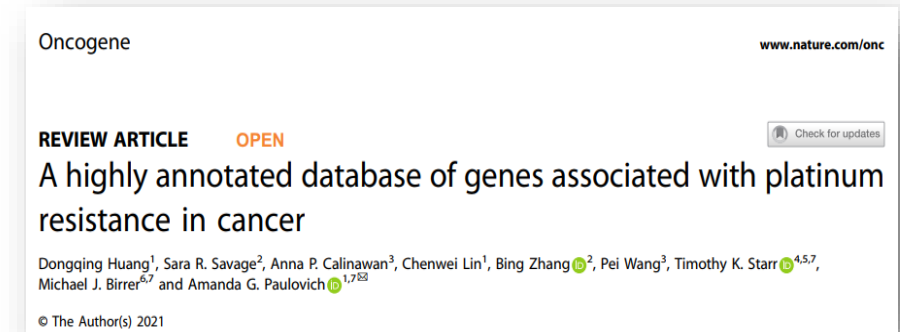
- Like most cancer drugs, how Cisplatin works and how the tumor resists depends on multiple factors (even with Herceptin, only 26% of HE2+ve patients have a positive response<sup>1</sup>)

CHOSA has a predictive algorithm (DRP) that embraces this complexity

- Uses the expression-state of **205 tumor genes** to predict the tumor response to cisplatin
- Fits seamlessly into clinical practice – biopsies routinely taken from all tumors – 72 hour turnaround

The iCIP DRP is clinically validated with FDA (IDE approval) and EU (CE mark)

Multiple retrospective clinical studies. Clinical prospective PoC of Phase 2b data to be published at ASCO 2023



**Response prediction is complex**

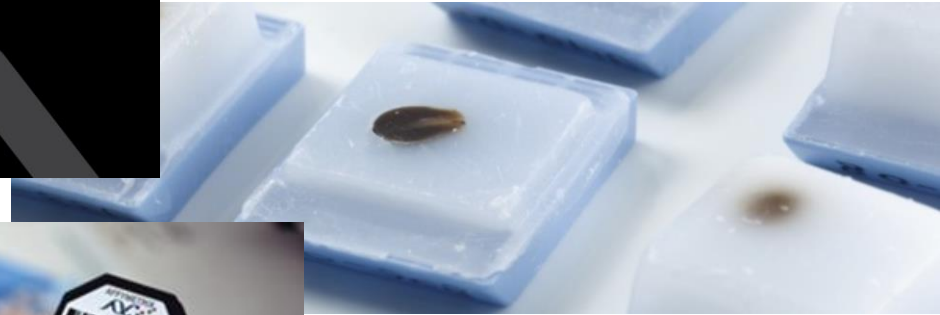
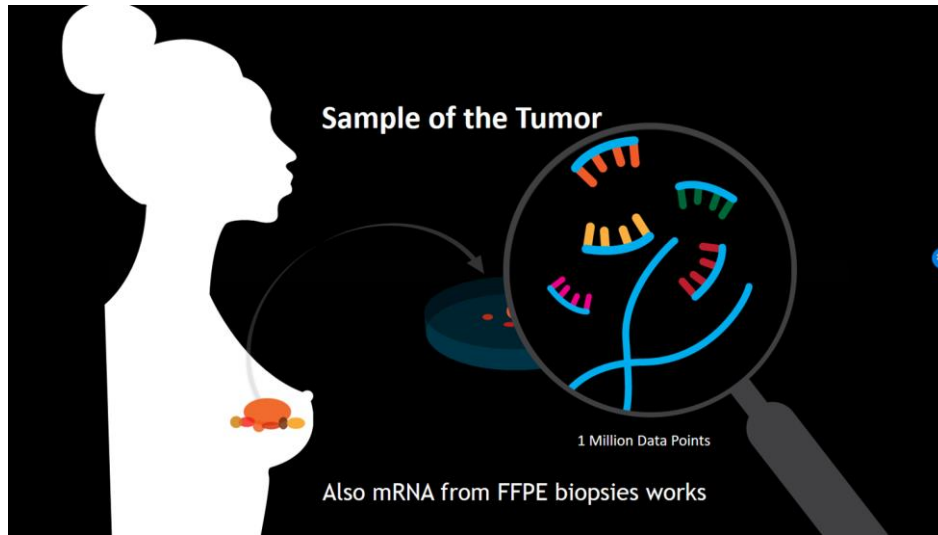
2021 review identified more than **900 genes** and proteins associated with platinum resistance (Oncogene (2021) 40:6395-6405)

**CHOSA has the patent on the 205 genes that most matter for predicting cisplatin utility**

(this was done before the article (above) was published)

**CHOSA owns a patent on this approach**





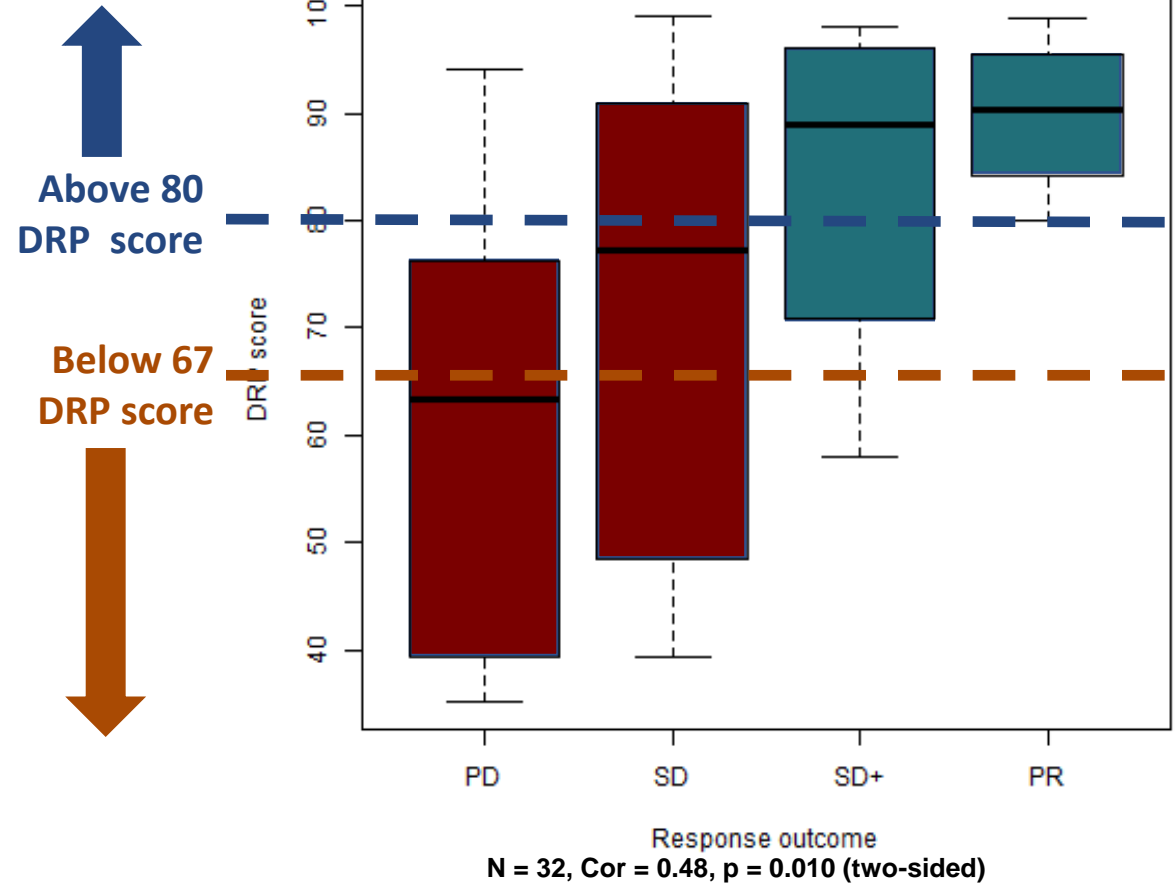
1. Track
2. Match
3. Treat

# The DRP<sup>®</sup> can identify those breast cancer patients who will benefit

As an example

## Prospective prediction of 32\* metastatic breast cancer patient's response to iCIP

- All patients for whom iCIP shrunk the tumor (to less than 50% of the original size) scored  $\geq 80$
- All patients where iCIP stabilized the disease for at least 6 months scored  $\geq 67$
- No patient with a score under 67 received a meaningful benefit from iCIP



\* Prediction was made on 48 patients but, for ethical reasons, the 16 with the worst scores were not given LiPlaCis

PD = Progressive Disease  
SD+ = Stable Disease, after 6 months

SD = Stable Disease, at first time point  
PR = Partial Remission i.e. regression >50% of tumor size

# iCIP Phase 2 Breast Cancer – final data to be published at ASCO 2023

Heavily pre-treated DRP selected breast cancer patients with median previous 6.6 treatment lines - blinded study

Overall results:		Total	DRP80+	DRP80-	Test for diff	
N		37	16	21		
ORR	abs	4				
	rel	10.8 %				
CBR	abs	8				
	rel	21.6 %				
PFS	mean					days
	SD					days
	median					days
	mean					weeks
OS	mean					days
	SD					days
	median		days			
	median		months			

ASCO poster presentation on June 6 at 8am local time/1am CET.

Abstract will be released by ASCO on May 25, 2023, at 5:00 PM EDT / 11am CET on [ASCO.org/Abstracts](https://www.asco.org/Abstracts).

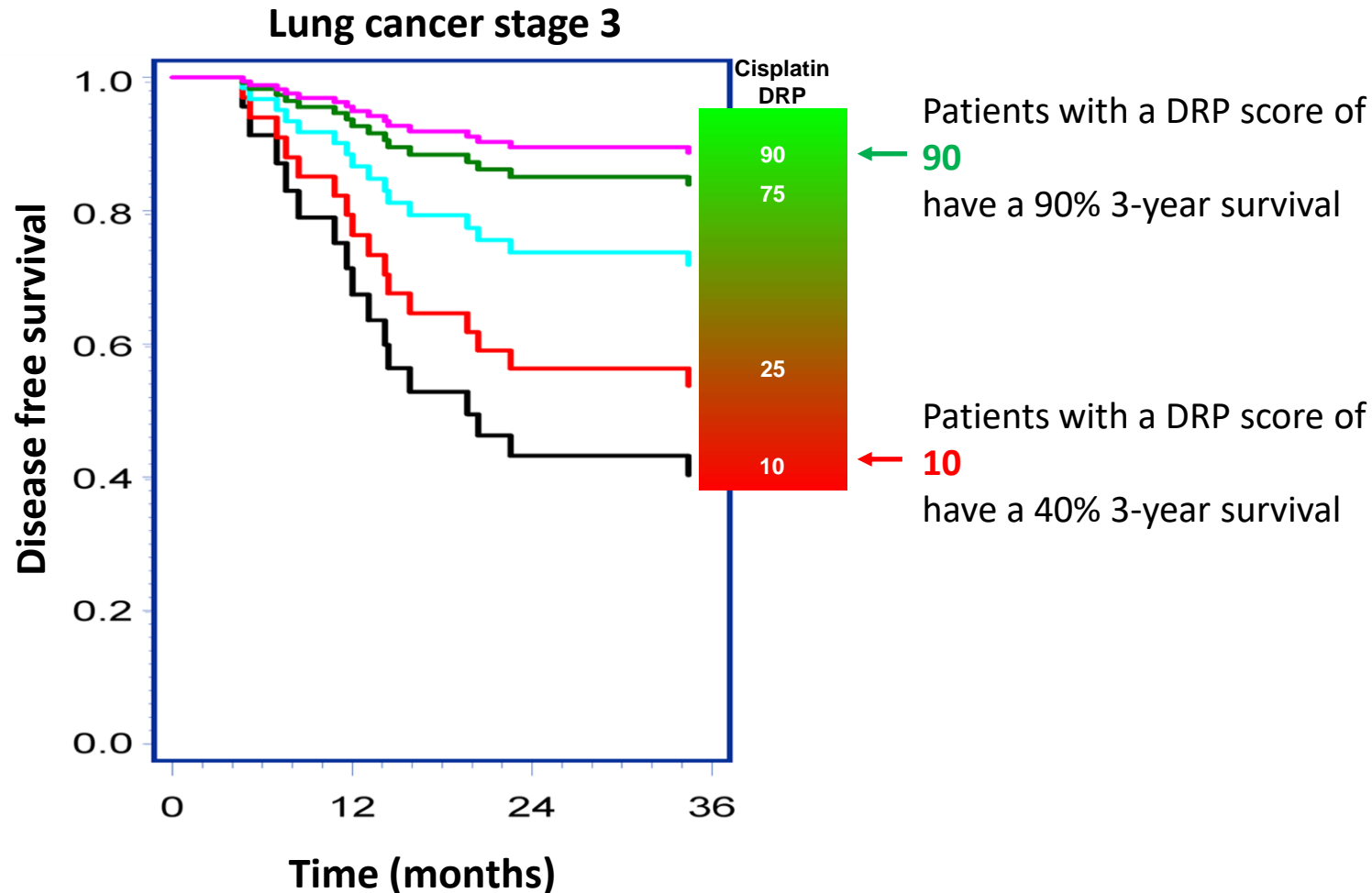
Strong data on Overall Response Rate (ORR) Clinical Benefit Rate (CBR) and Progression Free Survival (PFS). PFS advantage is first approval goal.

NEW surprisingly good data on Overall Survival (OS) gives the product a larger potential. Takes away risk and gives bigger market.

**DRP80+ are the patients selected by the cisplatin DRP technology**

# The DRP<sup>®</sup> can identify those lung cancer patients who will benefit

In a blinded, prospective-retrospective clinical study we together with lung cancer specialists from the University Hospital Rigshospitalet identified the patients who benefitted from treatment and those who did not



**PLOS ONE**

RESEARCH ARTICLE

## Molecular prediction of adjuvant cisplatin efficacy in Non-Small Cell Lung Cancer (NSCLC)—Validation in two independent cohorts

Ida Kappel Buhl<sup>1,2\*</sup>, Eric Santoni-Rugliu<sup>2</sup>, Jesper Ravn<sup>3</sup>, Anker Hansen<sup>1,4</sup>, Ib Jarle Christensen<sup>5</sup>, Thomas Jensen<sup>1,6</sup>, Bruce Pratt<sup>7</sup>, Jon Askaa<sup>7</sup>, Peter Buhl Jensen<sup>1,4</sup>, Steen Knudsen<sup>1,4</sup>, Jens Benn Sorensen<sup>7</sup>

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**OPEN ACCESS**

Citation: Buhl IK, Santoni-Rugliu E, Ravn J, Hansen A, Christensen IJ, Jensen T, et al. (2018) Molecular prediction of adjuvant cisplatin efficacy in Non-Small Cell Lung Cancer (NSCLC)—Validation in two independent cohorts. *PLoS ONE* 13(3): e0194808. <https://doi.org/10.1371/journal.pone.0194808>

Editor: Amir Ahmad, University of South Alabama Mitchell Cancer Institute, UNITED STATES

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Data Availability Statement: Microarray data from the PFI cohort available on GEO as GSE108492 with the link: <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE108492>.

Funding: This work was supported by The Marub Development Fund, Denmark, 1303015, <https://doi.org/10.13039/501100011033>; Innovation Fund Denmark, grant 5139-000258 (NS), <https://doi.org/10.13039/501100011033>; Danish Cancer Society research scholarship 884-45585

**Abstract**

### Introduction

Effective predictive biomarkers for selection of patients benefiting from adjuvant platinum-based chemotherapy in non-small cell lung cancer (NSCLC) are needed. Based on a previously validated methodology, molecular profiles of predicted sensitivity in two patient cohorts are presented.

### Methods

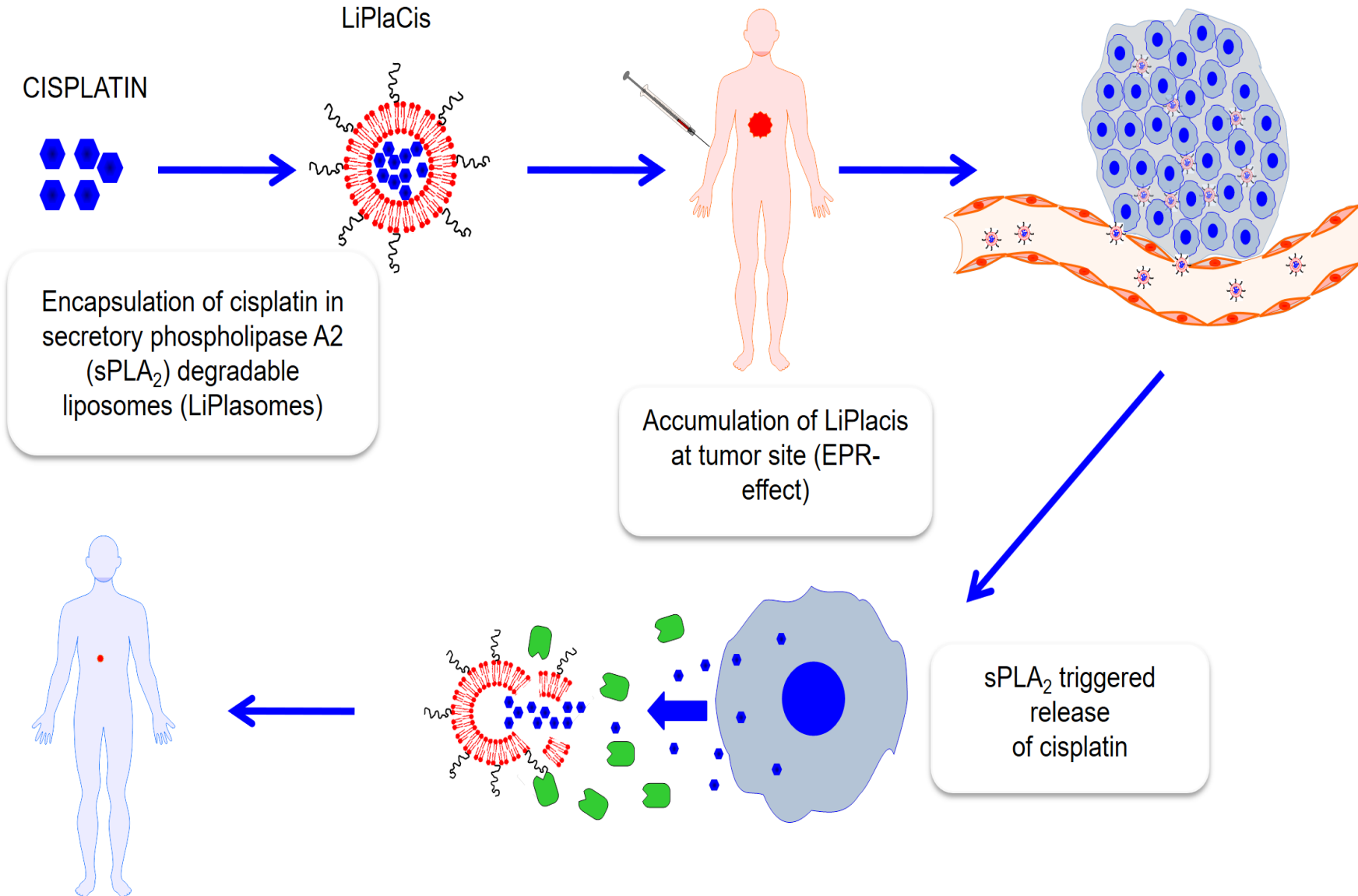
The profiles are correlations between in vitro sensitivity to cisplatin and vinorelbine and baseline mRNA expression of the 60 cell lines in the National Cancer Institute panel. An applied clinical samples filter focused the profiles to clinically relevant genes. The profiles were tested on 1) snap-frozen tumors from 133 patients with completely resected stage 1B-2 NSCLC randomized to adjuvant cisplatin and vinorelbine (ACV, n = 77) or no adjuvant treatment (OBS, n = 62) and 2) formalin-fixed paraffin-embedded (FFPE) tumors from 95 patients with completely resected stage 1A-3B NSCLC receiving adjuvant cisplatin and vinorelbine.

### Results

The combined cisplatin and vinorelbine profiles showed: 1) univariate Hazard Ratio (HR) for sensitive versus resistant of 0.265 (95% CI:0.079–0.889, p = 0.032) in the ACV cohort and a HR of 0.28 in a multivariate model (95% CI:0.08–1.04, p = 0.0573); 2) significant prediction at 3 year survival from surgery in univariate (HR = 0.138 (95% CI:0.035–0.537), p = 0.004) and multivariate analysis (HR = 0.14 (95% CI:0.030–0.6), p = 0.0081). No discrimination

# About the iCIP LiPlaCis technology

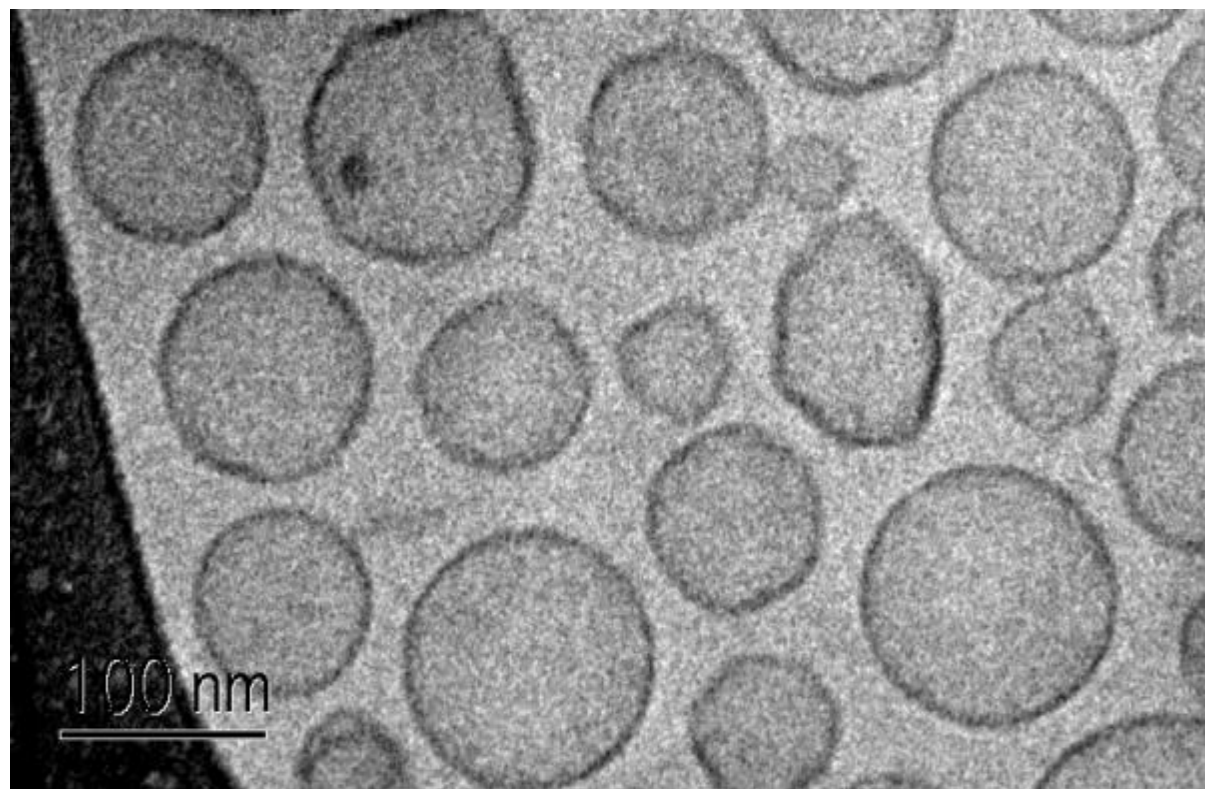
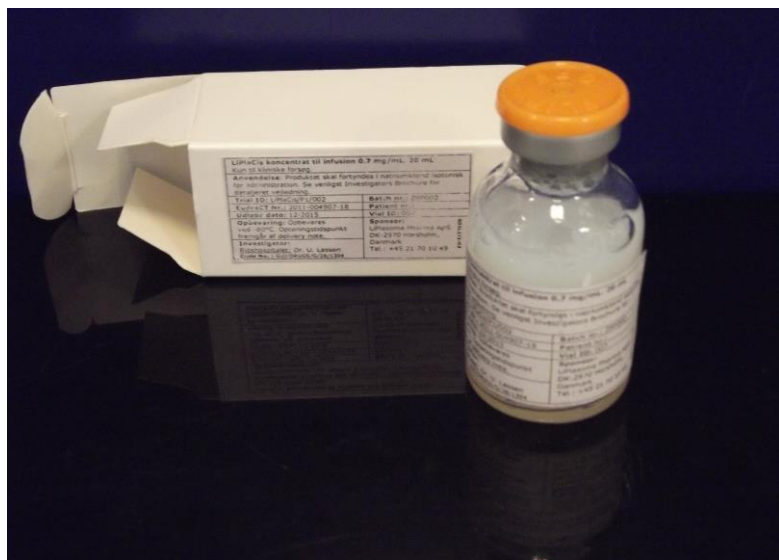
# LiPlaCis - The intelligent liposome



- ✓ The liposomal formulation of cisplatin **delivers the anticancer drug directly at the tumor site** and appears to have a milder\* toxicity profile
- ✓ Will be the first and only liposomal cisplatin on the market



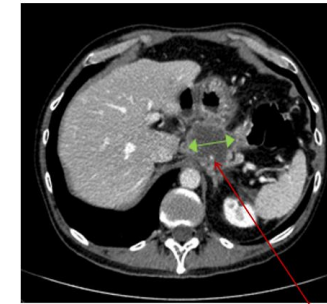
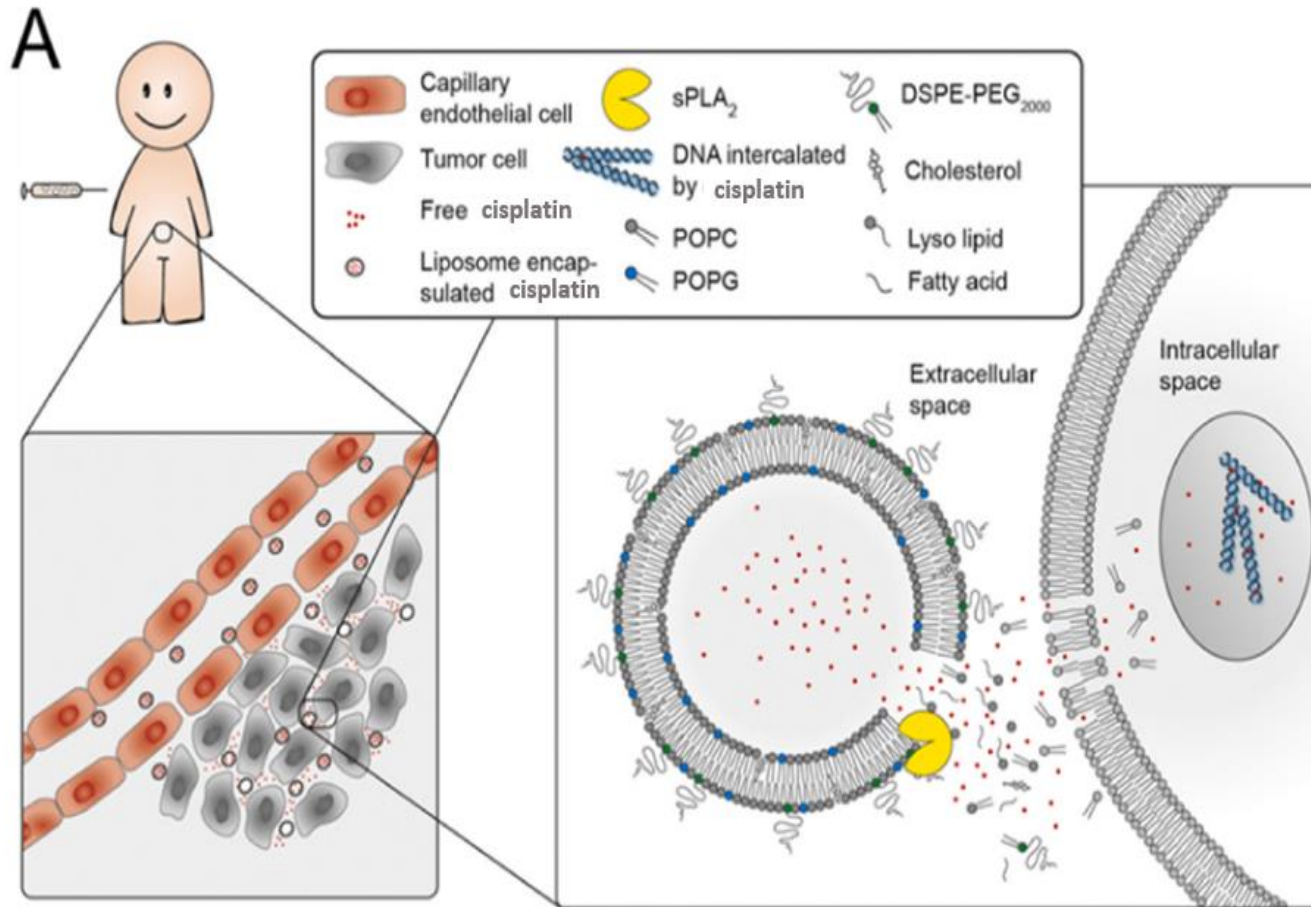
# LiPlaCis<sup>®</sup> is made for CHOSA by an FDA-approved contract manufacturer



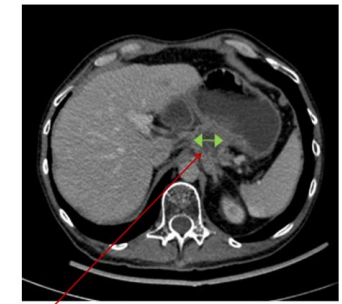
More than 30 batches of LiPlaCis<sup>®</sup> have been produced

Scale-up manufacturer identified





Patient x – Base line



Patient x – After 6 cycles of LiPlaCis treatment

Confirmed Partial Remission in esophagus cancer

BEFORE



This patient with skin cancer had exhausted all standard medicine and irradiation and was referred to experimental therapy at the University Hospital, Rigshospitalet, Denmark

AFTER



12 weeks and 6 LiPlaCis treatments later the tumor was small enough to be removed by the surgeons



# FDA Approves Pedmark for Prevention of Platinum-Induced Ototoxicity in Pediatric Solid Tumors

Sep 20, 2022

Kristi Rosa



**FENNEC PHARMA**

**PRESS RELEASE**

**FENNEC PHARMACEUTICALS  
ANNOUNCES FDA APPROVAL OF  
PEDMARK® (SODIUM THIOSULFATE  
INJECTION)**

September 21, 2022

*~ PEDMARK® is the First and Only FDA-Approved Therapy Indicated to Reduce the Risk of Ototoxicity Associated with Cisplatin in Pediatric Patients with Localized, Non-Metastatic Solid Tumors ~*



**Journal of Clinical Oncology®**  
An American Society of Clinical Oncology Journal

Enter words / phrases / DOI / ISBN / authors / keywords / etc.

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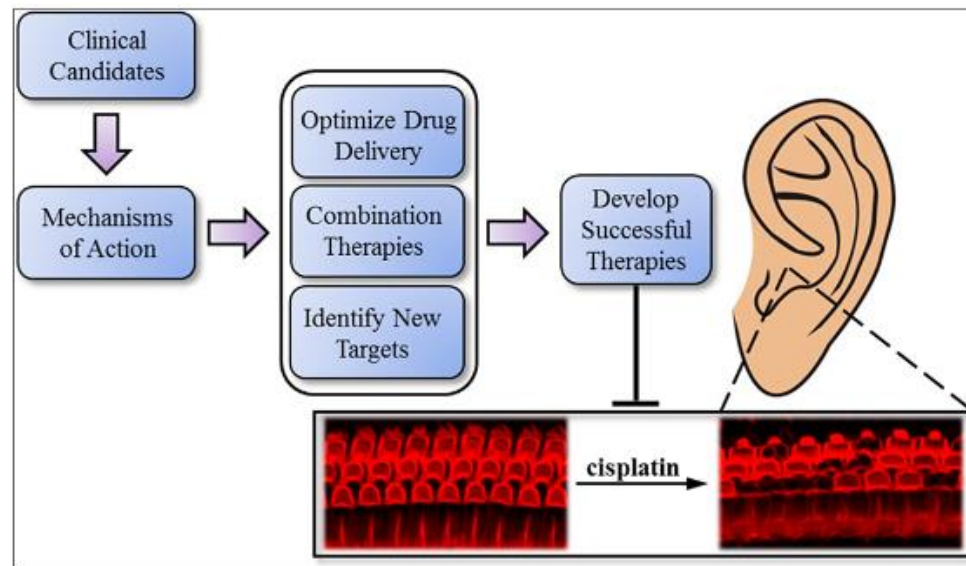
[Journal of Clinical Oncology](#) > [List of Issues](#) > [Volume 41, Issue 12](#) >

**ORIGINAL REPORTS | Supportive Care and Quality of Life**

**Patient-Reported Functional Impairment Due to Hearing Loss and Tinnitus After Cisplatin-Based Chemotherapy**

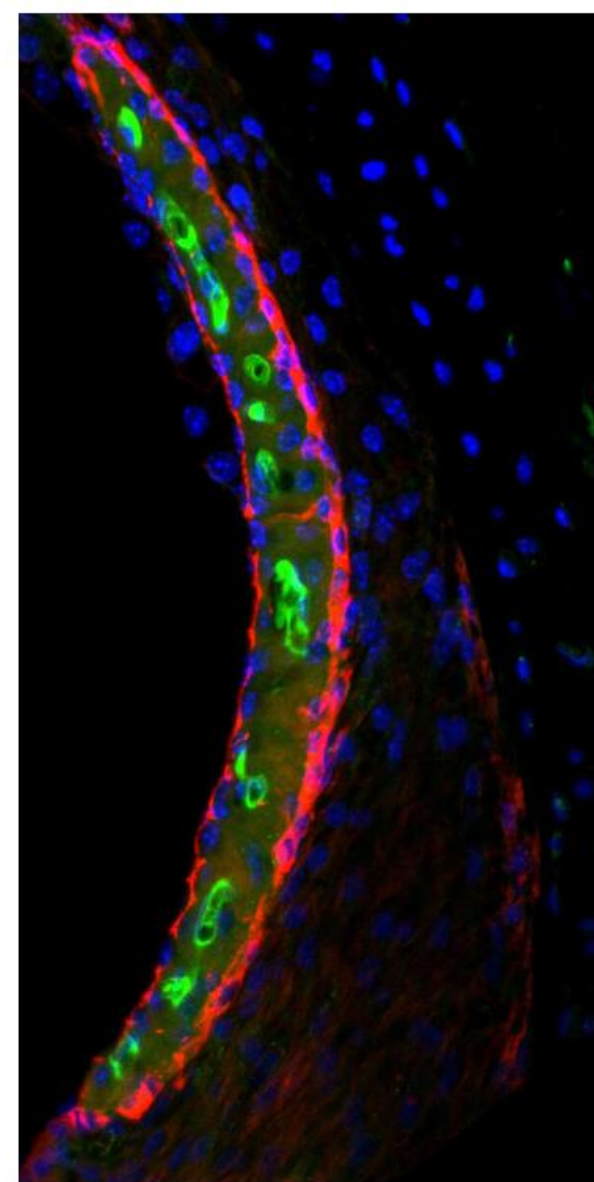
Fennet Pharmaceuticals  
Mkt cap 235 mUSD

## Progress in the Development of Preventive drugs for Cisplatin-Induced Hearing Loss



J. Med. Chem. 2018, 61, 5512-5524

LiPlaCis data showed no hearing loss in phase 2b in 37 heavily pretreated breast cancer patients



The chemotherapy drug cisplatin (in green) in a mouse inner ear. The drug was found to be retained in the inner ears of both mice and humans months or even years after treatment.  
Credit: National Institute on Deafness and other Communication Disorders

# The history of iCIP

and CHOSA

# Historic Funding of iCIP, CHOSA rights

**Invested in iCIP to date: 345MSEK = 35 mUSD**

MPI/Oncology Venture 105MDKK

Vecata, BankInvest  
& Incuba 107MDKK

Leo-pharma & BankInvest  
Into LiPlasome 20MDKK

EuroStars grant 1.9 M€ 14MDKK

In 2022  
CHOSA Oncology  
bought global rights to iCIP  
(inclusive of LiPlaCis<sup>®</sup> + DRP<sup>®</sup> technologies)

from Allarity Therapeutics Inc.  
(prev. Oncology Venture)

Phase 2  
now completed successfully



## Oncology Venture

Oncology Venture (OV) continues to provide regular response data from its ongoing LiPlaCis Phase II trial in patients with metastatic breast cancer (mBC). To date, 33% of the top one-third sub-population delineated by the drug response predictor (DRP) achieved partial remission (PR) or better. The data also suggested that tightening the LiPlaCis DRP threshold may increase response rates.

Exhibit 1: Valuation of OV

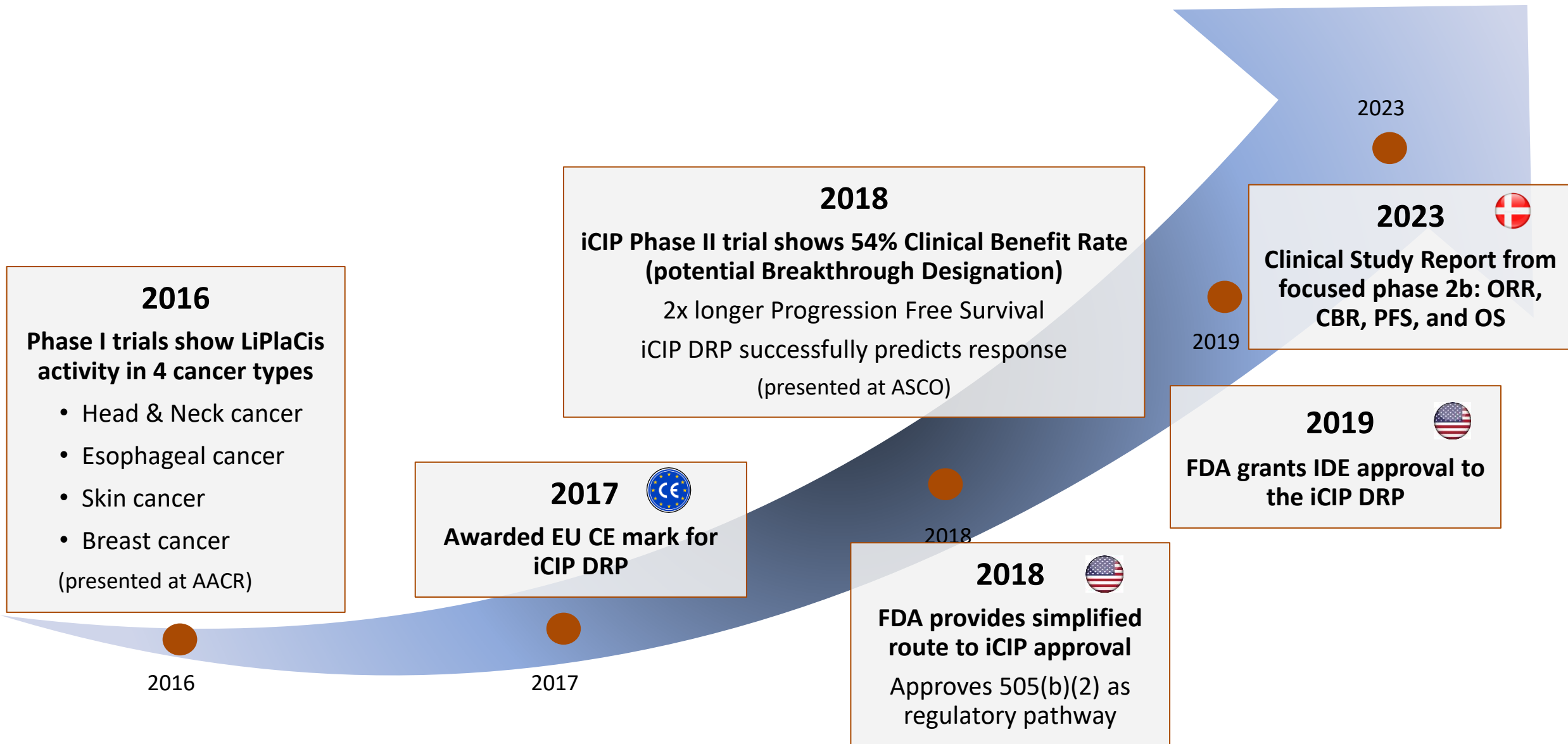
Development Program	Indication	Clinical stage	Prob. of success	Launch year	Launch pricing	Peak sales (\$m)	rNPV (SEKm)
LiPlaCis	Metastatic breast cancer and metastatic prostate cancer	Phase II	25%	2023	\$91,000	259.8	670.7

670 mSEK = USD \$64 m

This was *prior* to the recent positive Phase 2b results



# iCIP – value development to date





# The future of iCIP

and CHOSA

# iCIP – indicative clinical & regulatory strategy – INITIAL FOCUS

## Metastatic breast cancer – a fast approval route of iCIP is supported by our results

- Based on the good Phase 2 results in metastatic Breast Cancer CHOSA will aim for a Breakthrough Therapy Designation at the FDA and for the PRIME program at the EMA
- Metastatic breast cancer is rarely cured, and prolonged survival and good quality of life are important goals
- 2x superiority of iCIP vs. existing therapies (to be published)
- Cross-over design of fewer than 40 patients will be enough to demonstrate the superiority of iCIP
- This study could lead to approval. If not, a simple repeat is likely sufficient. The 2 studies can be done for < USD \$10M

## Childhood Cancers

- Observations from the Phase 2 study suggest that there is no hearing loss with iCIP
- Permanent hearing loss a serious side effect of cisplatin and this is especially problematic for children and young adults
- CHOSA will discuss with authorities a study of iCIP in children where hearing degradation forces physicians to stop using cisplatin. This could potentially be independent of DRP score

**Approaches to be discussed with US and EU authorities and we expect news flow around that**

A breakthrough therapy designation is for a drug that treats a serious or life-threatening condition and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement on a clinically significant endpoint(s) over available therapies.



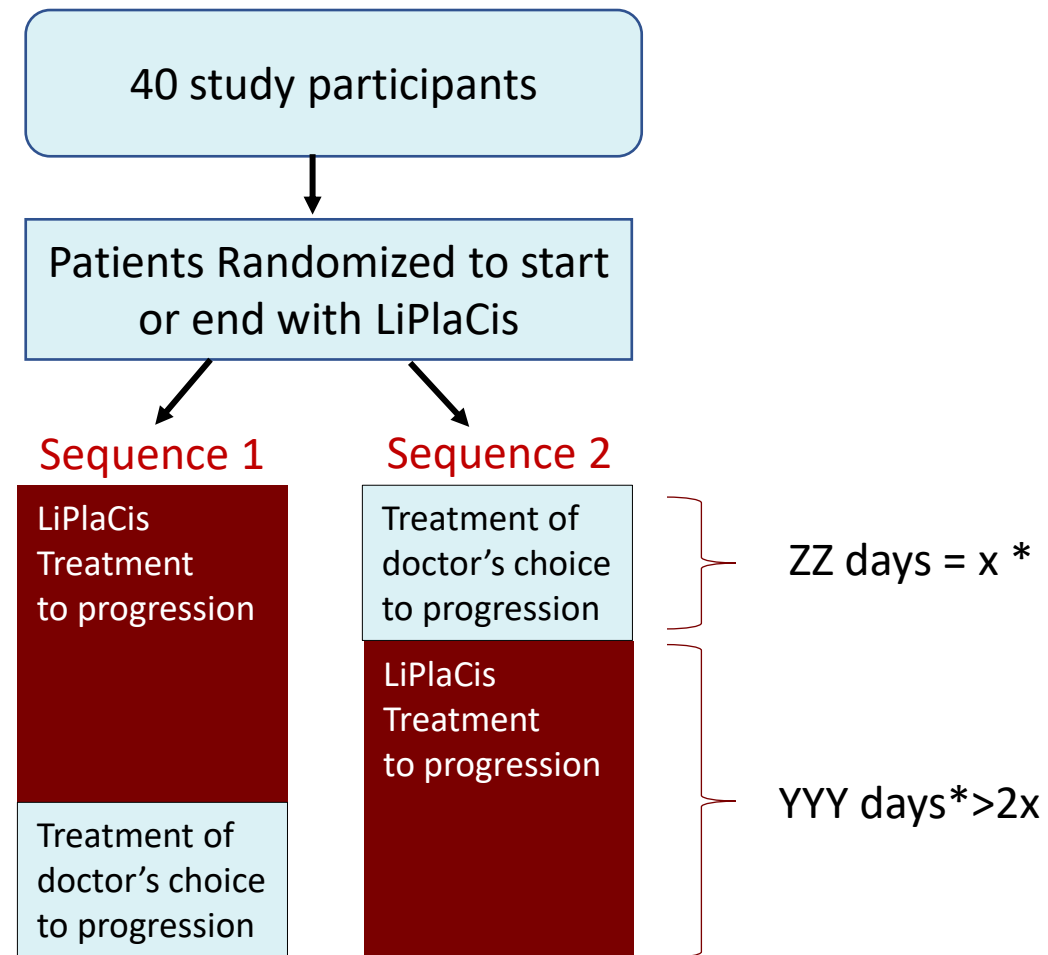
# Breakthrough Designation opportunity with $\leq 50$ patients

**Crossover study comparing PFS (progression free survival) of iCIP and treatment with standard drug by physician's choice**

**Screen 250 patients to identify the 50 patients with top 20% DRP**

**Aim to include app. 40 patients and expect 35 to complete the two treatments**

If a randomized pivotal trial shows a PFS difference of = **2 times or more e.g., 55 days and 110 days** a power of 80% and a P value of  $< 0.05$  (double-sided) is obtained with **31 patients going through both treatments**



\* From analysis of > 800 patients and phase 2 data

# iCIP – indicative clinical & regulatory strategy – INDICATION EXPANSION

## Potential for iCIP to increase the rate of CURE in major cancers

### Neoadjuvant\* use in early breast cancer

- Many early breast cancer patients are cured but c. 20% are not – iCIP is not bone marrow toxic and can be added to most current chemotherapies
- Proposed to focus on those patients with a top 20% DRP score
- iCIP toxicity profile appears to allow full doses of all combination schedules, i.e. iCIP can be added to all current gold-standard early therapies

### Neoadjuvant\* use in early lung cancer

- A major indication is lung cancer – platins are standard in the treatment of lung cancer. The overall response rate to cisplatin in lung cancer is 21%
- Many lung cancer patients are diagnosed too late – only 20% go to surgery whereas the remaining 80% are inoperable
- Neoadjuvant iCIP is for those with a top 20% DRP score - has the potential to downstage the tumor and make it operable

### Ovarian cancer, head & neck cancer, colorectal, esophageal cancer, bladder cancer, lymphomas

- All cancers where platins are standard and where iCIP has winning potential (indeed in all the 16 different cancers where platins are used)



**These questions will ALSO be discussed with US and EU authorities, and we expect newsflow around that**

## Neoadjuvant is a very attractive place to use CHOSAs response predictor and aim for approval of LiPlaCis

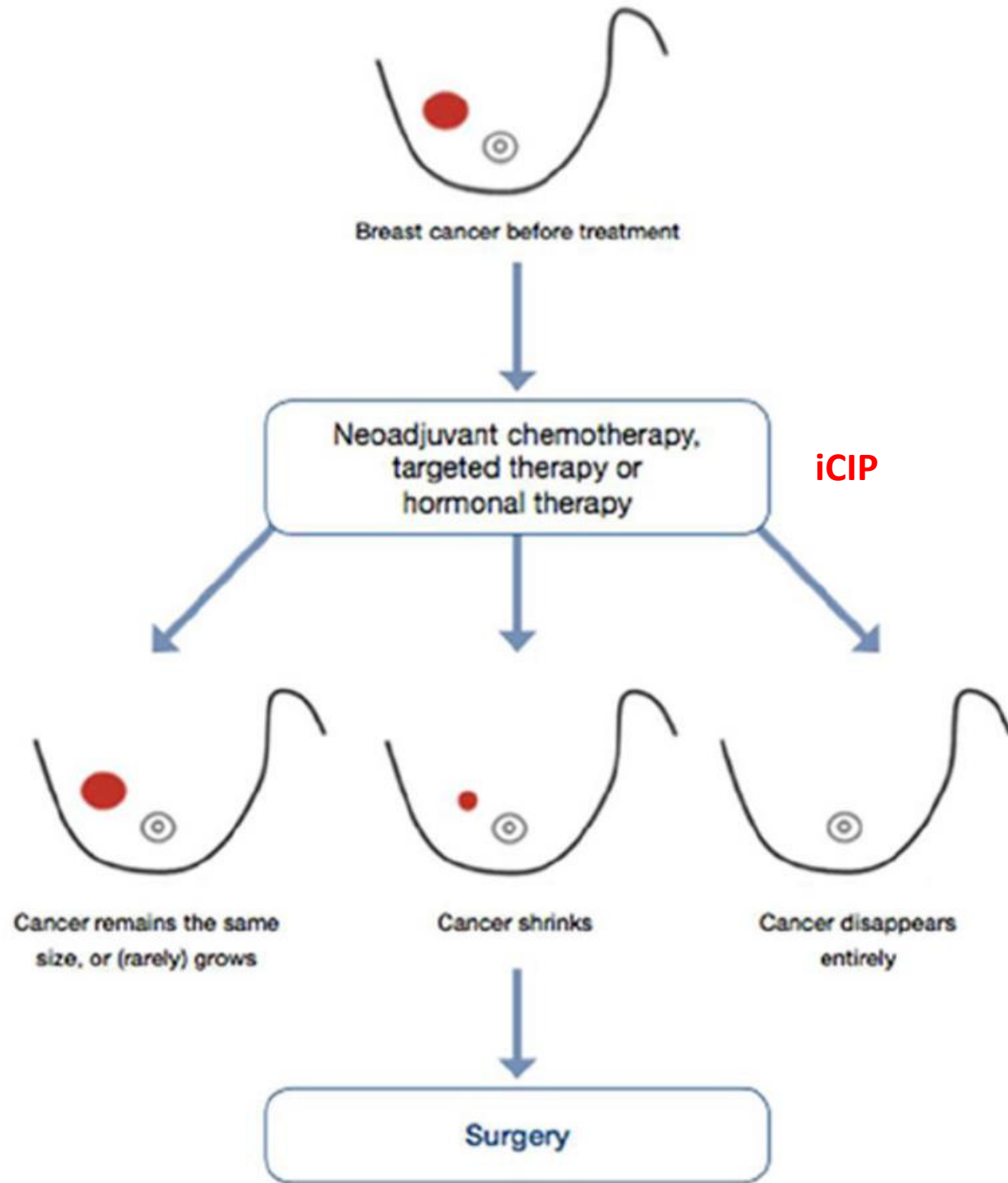
### Below is CHAT gpt answer to Q “cisplatin data in neoadjuvant”



Cisplatin is a commonly used chemotherapy drug in neoadjuvant therapy for various types of cancers. Here are some data points about the use of cisplatin in neoadjuvant therapy:



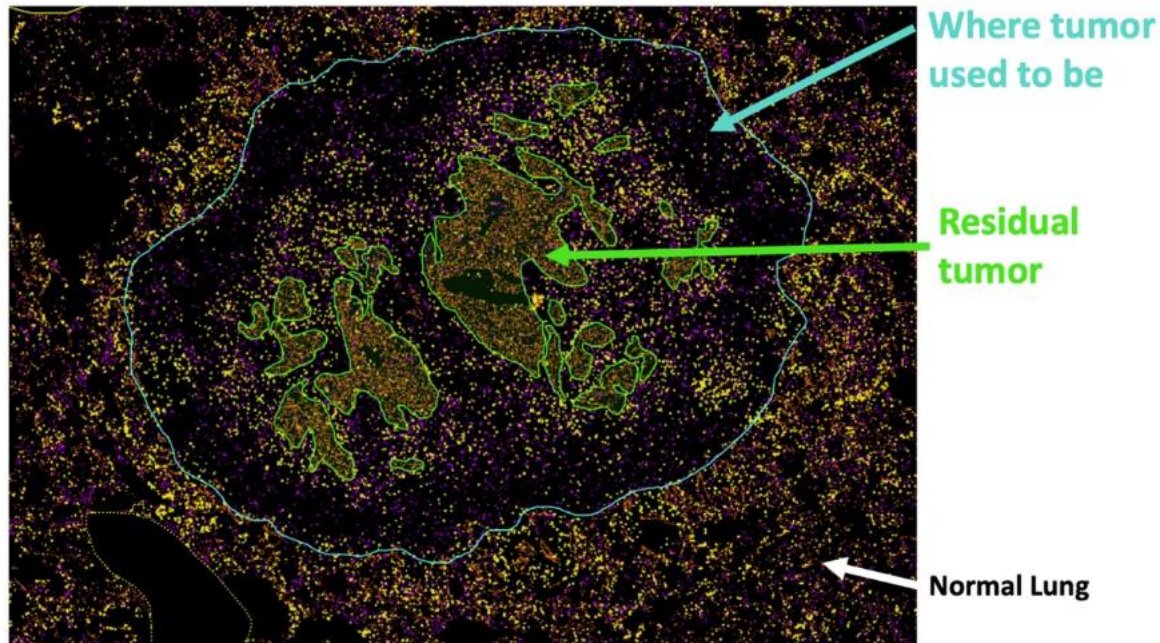
- In bladder cancer, cisplatin-based neoadjuvant chemotherapy has been shown to improve survival outcomes for patients undergoing radical cystectomy (surgical removal of the bladder).
- In ovarian cancer, neoadjuvant chemotherapy with cisplatin-based regimens has been shown to be effective in reducing tumor size and improving surgical outcomes, particularly in patients with advanced-stage disease.
- In head and neck cancer, cisplatin-based neoadjuvant chemotherapy has been shown to improve overall survival and disease-free survival in patients with locally advanced disease.
- In lung cancer, neoadjuvant chemotherapy with cisplatin-based regimens has been shown to improve survival outcomes in patients with resectable disease, particularly in those with stage IIIA disease.
- In esophageal cancer, neoadjuvant chemotherapy with cisplatin-based regimens has been shown to improve survival outcomes and increase the likelihood of complete tumor resection in patients undergoing surgery.





# Immunotherapy Plus Chemotherapy Before Surgery Improves Outcomes for Patients with Lung Cancer

04/11/2022



Multiplex immunofluorescence image from the AstroPath platform shows a 70% reduction in lung tumor size, prior to definitive surgery. In this image, remaining tumor is shown in orange; anti-tumor T-cells are shown in yellow; macrophages are magenta. Credit: Alexander Szalay, Ph.D., Janis Taube, M.D., M.Sc., and the AstroPath team

Immunotherapy (Nivolumab Opdivo)

+ cisplatin for NSCLC

FDA approved March 2022

Neoadjuvant

CHECKMATE-816  
(NCT02998528)

Those who received the combination therapy achieved a **pathological complete response rate of 24%**

**iCIP expected to find the benefiter** and the other 76% can be part of other developments

The cisplatin DRP can improve approved PD1/PDL1 inhibitors – the company who buys the cisplatin DRP wins the market



## Comparator transaction

(analogous asset to iCIP but without the DRP)

In 2017

Ipsen bought Onivyde (liposomal irinotecan) from Merrimack for \$ 1.025B

In November 2022

Onivyde improved overall survival in pancreatic cancer compared to standard treatment

## Ipsen's \$1B Onivyde buy proves its worth in earlier pancreatic cancer

By Zoey Becker • Nov 9, 2022 12:16pm

Ipsen Pharmaceuticals

Onivyde

pancreatic cancer



## CHOSA offers

1. An opportunity to disrupt anti-cancer treatment
2. Competitive edge for PD1/PDL-1 inhibitors
3. A project with successful phase 2b data
4. Attractive, value-increasing inflection points in the near future

### Strong team

Built oncology ventures to exit



Developed oncology drugs to market



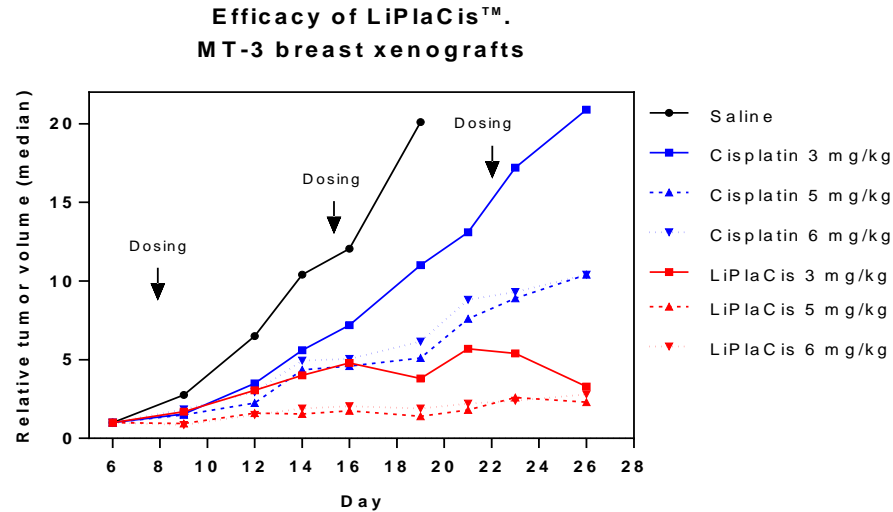
- [Adjuvant therapy for muscle-invasive urothelial carcinoma of the bladder](#)... postoperative pathology . Patients either received **neoadjuvant cisplatin**-based chemotherapy and had persistent muscle-invasive or nodal disease or did not receive **neoadjuvant** chemotherapy, had extravesical extension ...
- [Radiation therapy, chemoradiotherapy, neoadjuvant approaches, and postoperative adjuvant therapy for localized cancers of the esophagus](#)... potentially resectable thoracic esophageal SCC were randomly assigned to **neoadjuvant** CRT (RT concurrent with vinorelbine plus **cisplatin**) or surgery alone . At surgery, the pCR rate was 43 percent in those ...
- [Chemotherapy and radiation therapy in the management of osteosarcoma](#)... bleomycin, cyclophosphamide, and dactinomycin, and either vincristine or **cisplatin** . The concept of induction or **neoadjuvant** chemotherapy arose in concert with the evolving use of limb-sparing surgery ...
- [Neoadjuvant treatment options for muscle-invasive urothelial bladder cancer](#)... randomized trials that compared **cisplatin**-based **neoadjuvant** chemotherapy plus local therapy with local therapy alone . Compared with local therapy alone, **neoadjuvant cisplatin**-based combination chemotherapy ...
- [Overview of the management of bladder cancer in older adults](#)...surgical candidates and eligible for **cisplatin**-based chemotherapy, we suggest **neoadjuvant** chemotherapy plus cystectomy rather than cystectomy alone. The addition of **neoadjuvant** chemotherapy plus cystectomy in ...
- [Treatment of locoregionally advanced \(stage III and IV\) head and neck cancer: The oral cavity](#)...and adjuvant radiation without the need for **neoadjuvant** chemotherapy. Data for various **neoadjuvant** chemotherapy regimens are as follows: Docetaxel, **cisplatin**, and fluorouracil (TPF) – In a phase III trial ...
- [Multimodality approaches to potentially resectable esophagogastric junction and gastric cardia adenocarcinomas](#)... nodal disease after **neoadjuvant** CRT is to administer adjuvant chemotherapy with different agents than those given preoperatively (eg, ECF if the initial CRT regimen included only **cisplatin** and FU). There are ...
- [Bladder preservation treatment options for muscle-invasive urothelial bladder cancer](#)...assigned to two cycles of **neoadjuvant cisplatin**, methotrexate, and vinblastine (CMV) chemotherapy prior to concurrent chemoradiation or to concurrent chemoradiation without **neoadjuvant** chemotherapy . The addition ...
- [Overview of the initial approach and management of urothelial bladder cancer](#)...diversion is the treatment of choice for patients with muscle invasive disease **Neoadjuvant** chemotherapy – **Neoadjuvant cisplatin**-based chemotherapy followed by radical cystectomy improves overall survival ...
- [Carcinoma of the penis: Surgical and medical treatment](#)...ifosfamide, and **cisplatin**). We favor TIP through extrapolation from the **neoadjuvant** experience and because the prognosis for recurrent, metastatic disease is so poor. However, other **cisplatin**-based regimens ...

# LiPlaCis has improved efficacy and reduced toxicity vs. cisplatin

## Improved effect of LiPlaCis over cisplatin

## LiPlaCis targets the cancer

Efficacy



In three patients we took parallel biopsies from their tumors and normal tissue

LiPlaCis-DNA adducts level was 5.7 to 8.3 x higher in the tumor than in normal tissues

Toxicity

### Cisplatin/carboplatin

- Toxic to the kidneys
- Hearing loss (irreversible)
- Neurotoxic
- Nausea
- Bone marrow toxic

### LiPlaCis data (from 100 patients)

- Transient kidney toxicity
- No hearing loss
- No reported neurotoxicity
- No problems with nausea
- No bone marrow toxicity (as with cisplatin)

**Better toxicity** allows wider use in combination therapies