CURRENT & UPCOMING CLINICAL TRIALS/ NEW TREATMENTS IN GIST

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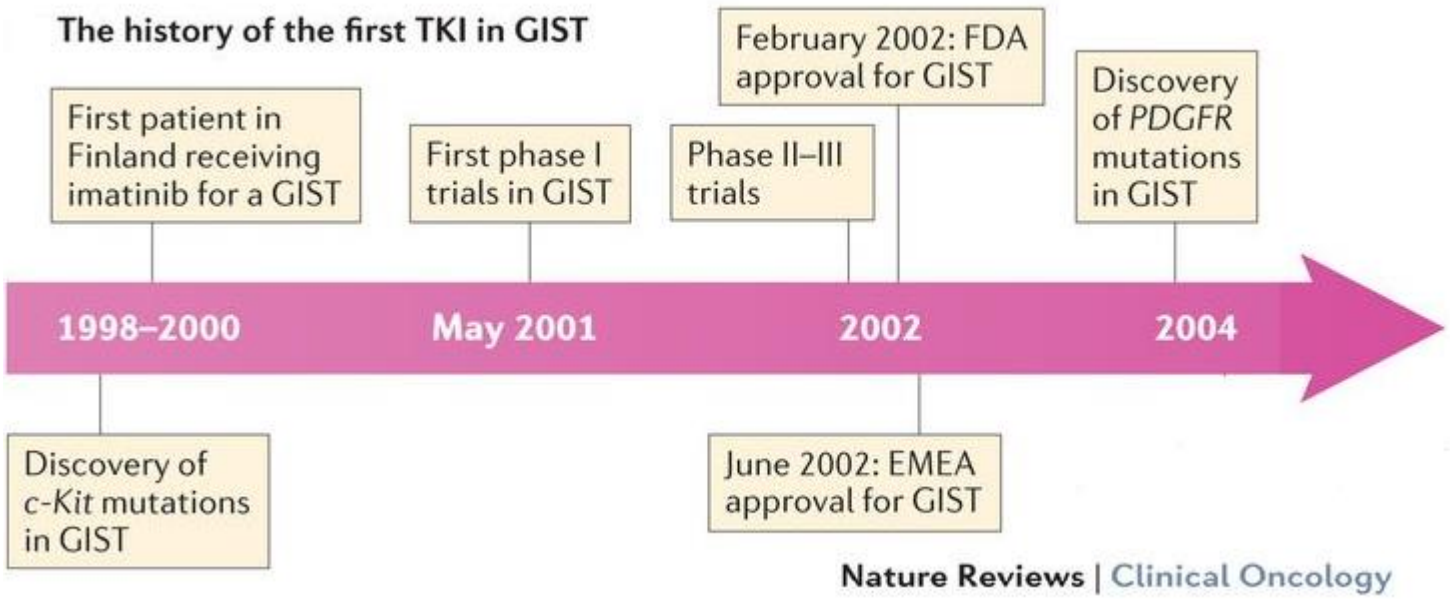
CURRENT & UPCOMING CLINICAL TRIALS/ NEW TREATMENTS IN GIST

20 years after the discovery of c-KIT mutation in GIST

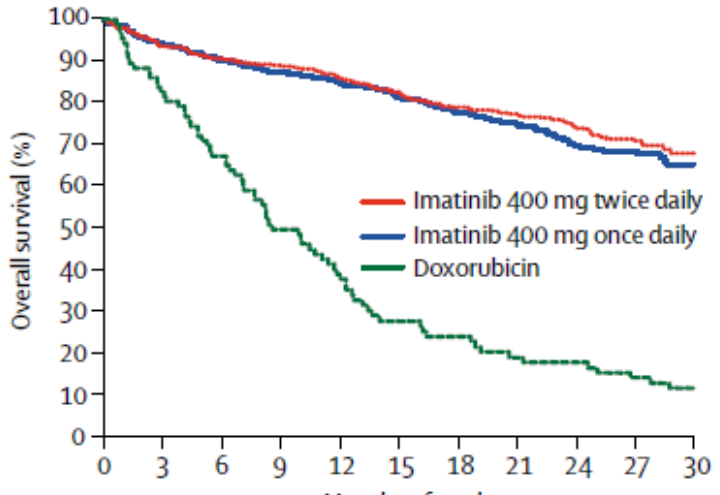


CURRENT & UPCOMING CLINICAL TRIALS/ NEW TREATMENTS IN GIST

New drugs have increased the life expectancy of GIST patients dramatically

More new drugs are coming

We should not forget the merits of the 'Old' drugs and keep optimizing their use



Number at risk						
Imatinib 400 mg once daily	473	423	387	315	192	49
Imatinib 400 mg twice daily	473	427	399	323	201	51
Doxorubicin	86	57	31	19	14	8

Figure 6: **Overall survival for total study population**
Data are compared with historical (GIST) controls from the EORTC database. Dox=doxorubicin-based regimen

Verweij et al, Lancet 2004 Sep 25-Oct 1;364(9440):1127-34.

CURRENT & UPCOMING CLINICAL TRIALS/ NEW TREATMENTS IN GIST

Do not forget the “five rights” of medication use:

the right patient, the right drug, the right time, the right dose, and the right route

CURRENT & UPCOMING CLINICAL TRIALS/ NEW TREATMENTS IN GIST

Current & upcoming clinical trials/ new treatments in GIST

Quadruple wildtype	Larotrectinib (LOXO-101) and LOXO-195
SDH deficient	Crenolanib (CP-868,596-26 or AR-868,596-26)
PDGFR D842V	Avapritinib (BLU-285)
KIT Exon 13-18:	DCC 2618
	Masitinib
	and more…

brief

Focus on current updates and study status

Optimize 'old' treatments in GIST

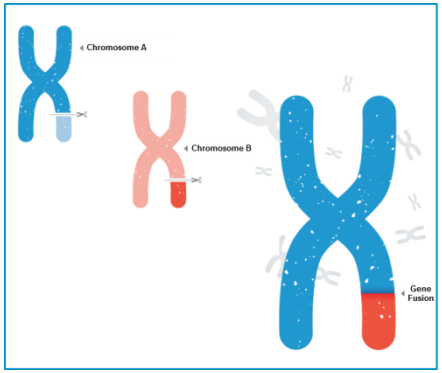
- Therapeutic Drug Monitoring (TDM)
- ctDNA as early biomarker for resistance/progression
- Database projects

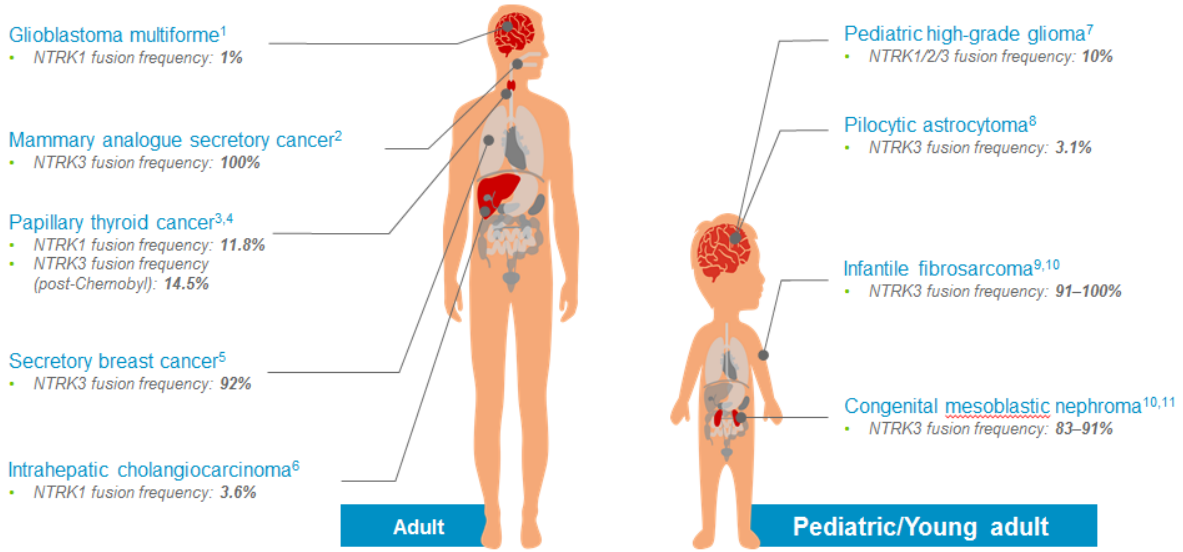
TAKE HOME MESSAGES

1. **For wildtype patients: do not forget to test for NTRK gene fusions & find a trial/treatment with a NTRK inhibitor (one example is Larotrectinib).**

LAROTRECTINIB IN TRK FUSION–POSITIVE CANCERS

- Gene fusions are a hybrid (ie, chimeric) gene formed from two normally separate genes
- NTRK Gene Fusions are found in many cancers (rare).



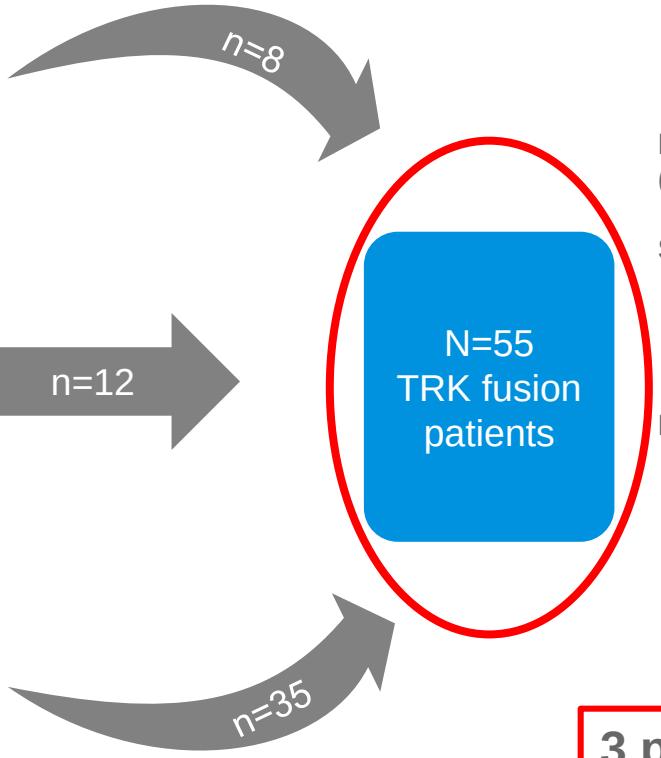


A Pooled Analysis from Three Larotrectinib Clinical Trials was Performed[1,2]

Adult phase 1
- Age ≥18 years
- Advanced solid tumors

SCOUT pediatric phase 1/2
- Age ≤21 years
- Advanced solid tumors

NAVIGATE adult/adolescent phase 2 'Basket Trial'
- Age ≥12 years
- Advanced solid tumors
- *NTRK* gene fusion



TRK fusion status
- Determined by local CLIA (or similarly accredited) laboratories
- Assessed by NGS (n=50) and FISH (n=5) in 15 laboratories*

Primary endpoint (combined analysis)
- Overall response rate (ORR)†

Secondary endpoints
- ORR‡
- Duration of response
- Progression-free survival
- Safety (CTCAE 4.0)

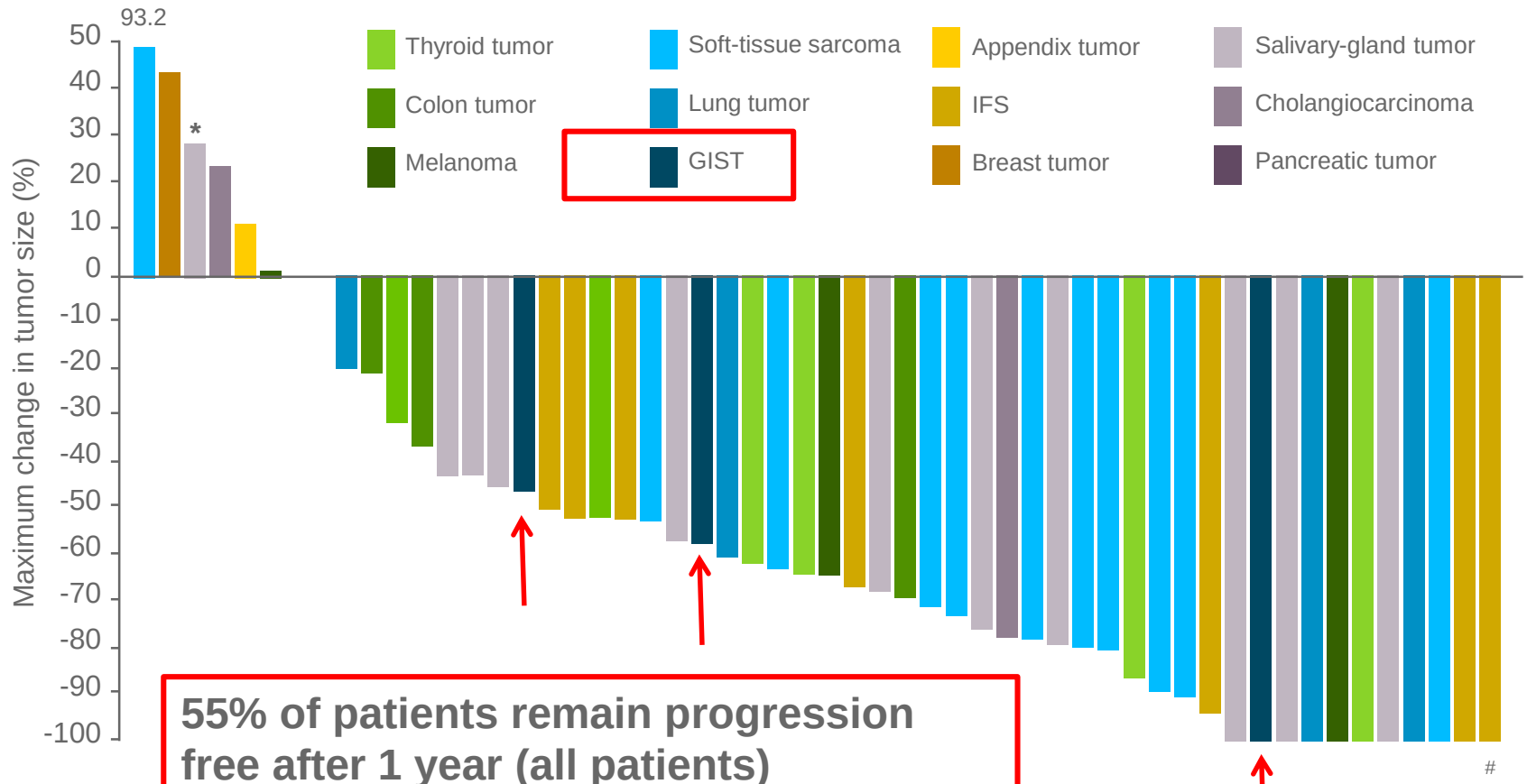
Dosing
- Adults: 100 mg BID
- Children with BSA <1m^2: 100 mg/m^2 BID
- Treatment beyond progression is permitted if patient continues to benefit

3 patients with GIST

*Confirmation testing was not required or routinely performed. †Assessed by independent radiology review according to RECIST 1.1. ‡According to investigator's assessment. Tumor assessments were performed baseline and every 8 weeks for 1 year and every 12 weeks thereafter until disease progression

Drilon A, *et al. N Engl J Med* 2018;378:731-739.

Efficacy of Larotrectinib Across Tumor Types



NOTE: One patient not shown here. Patient experienced clinical deterioration and no post-baseline tumor measurements were recorded.
*Patient had TRK solvent front resistance mutation (NTRK3 G623R) at baseline due to prior therapy with TRK fusion activity; #Pathologic CR

LAROTRECTINIB

CURRENT UPDATE

- May 2018: Larotrectinib is granted Priority Review by the Food and Drug Administration in the U.S. for the treatment of adult and pediatric patients with locally advanced or metastatic solid tumors harboring a *NTRK* gene fusion.
- 27 Aug 2018: Bayer submits European marketing authorization application to the European Medicines Agency (EMA) for larotrectinib for the treatment of TRK fusion cancer.
- SCOUT (pediatric phase 2) and NAVIGATE (adult/adolescent phase II) studies still ongoing and including more patients. More centers and countries are being considered for participation.
- After registration an observational study will open for collection of data in more patients.
- A Phase 1/2 Study of LOXO-195 for Patients With Previously Treated NTRK Fusion Cancers with resistance mutations is ongoing in US, Australia, Singapore and several sites in Europe.

LOXO-195 is a TRK inhibitor specifically designed to address acquired kinase domain mutation (1 GIST patient)

TAKE HOME MESSAGES

1. **For wildtype patients: do not forget to test for NTRK gene fusions & find a trial/treatment with a NTRK inhibitor (one example is Larotrectinib).**
2. **For patients with a PDGFRA D842V mutation: finding a trial with Crenolanib or Avapritinib (BLU-285) could potentially increase PFS and OS.**

CRENOLANIB IN D842V-POSITIVE GIST (IN LOCALIZED SETTING FOUND IN 8.3% OF GIST)

- Advanced or Metastatic *PDGFRA* D842V Mutated GIST Progress Rapidly and Do Not Respond to Imatinib

- Crenolanib is an orally bioavailable, highly potent, specific and selective TKI
  - Targets PDGFRA, PDGFRB, and FLT3, both WT and its mutants

Crenolanib is a selective, potent and specific inhibitor of FLT3, PDGFRα and PDGFRβ receptors

RTK	Crenolanib K_d (nM)
FLT3	0.74 nM
PDGFRβ	2.1 nM
PDGFRα	**3.2 nM**
CSF1R	30 nM
Kit	78 nM

ConticaGIST (EU); Wozniak A et al, Clin Cancer Res 2014
Yoo at al., Clin Cancer Res Treat. 2015

Crenolanib Showed 31% Clinical Benefit in Patients with D842V Mutated GIST

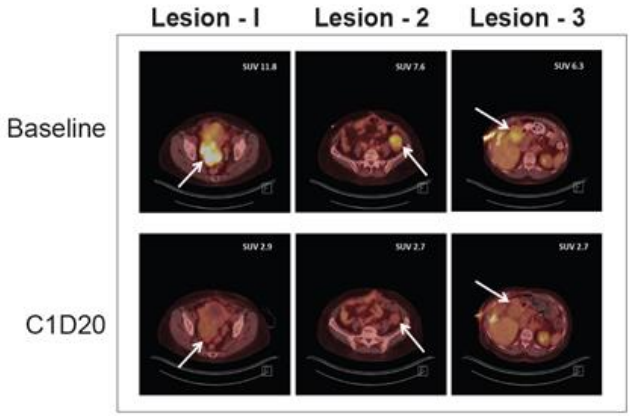
20 patients

- 5/16 evaluable patients achieved clinical benefit with:
  - 2 (13%) patients achieving PR
  - 3 (19%) patients maintaining SD

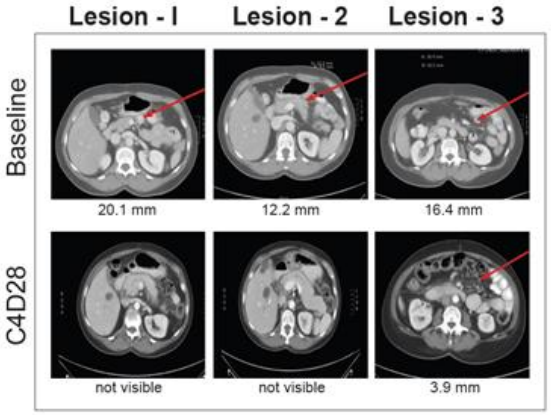
Evaluable Patients (N=16)

Response	Number	Percentage (%)
PR	2	12.5
Stable Disease	3	18.8
Overall clinical benefit (CR+PR+SD)	5	31.3

Strong metabolic response in GIST D842V patient following 20 days of crenolanib therapy



Patient achieved a partial remission with rapid 92% tumor reduction seen after 4 cycles of crenolanib therapy



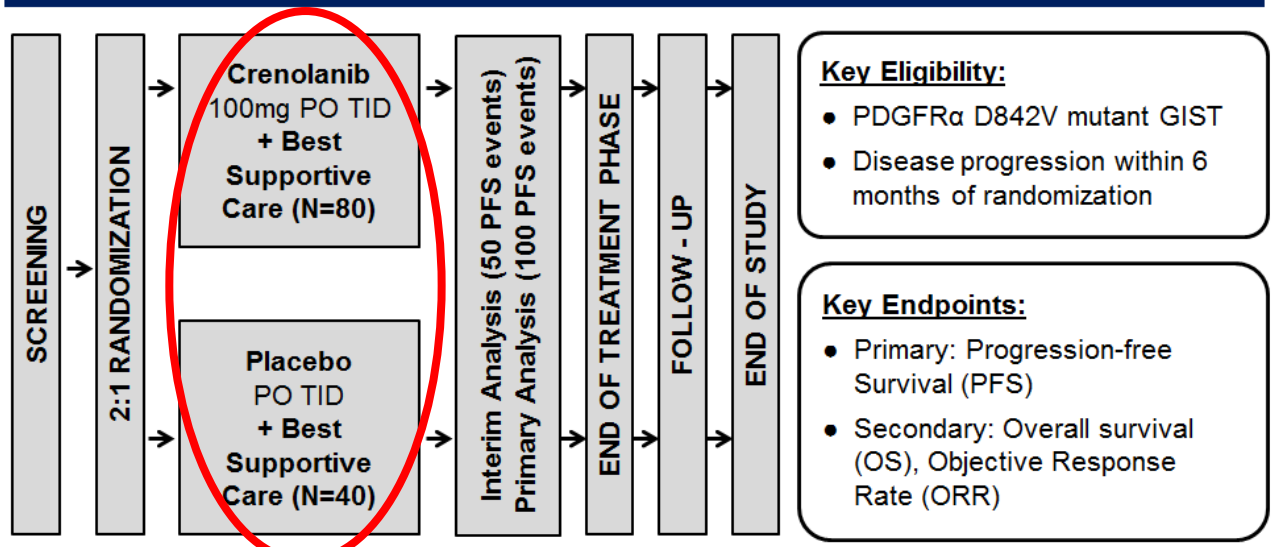
von Mehren et al., Proc. ASCO: 2016. abstract 11010

CRENOLANIB

CURRENT UPDATE

- ARO-012 CrenoGIST: Phase III Study of Crenolanib in D842V GIST ongoing.

A Randomized, Double-Blind, Placebo-Controlled, Multicenter, Trial of Crenolanib in Subjects with Advanced or Metastatic Gastrointestinal Stromal Tumors with a D842V Mutation in the *PDGFRA* Gene



Key Eligibility:

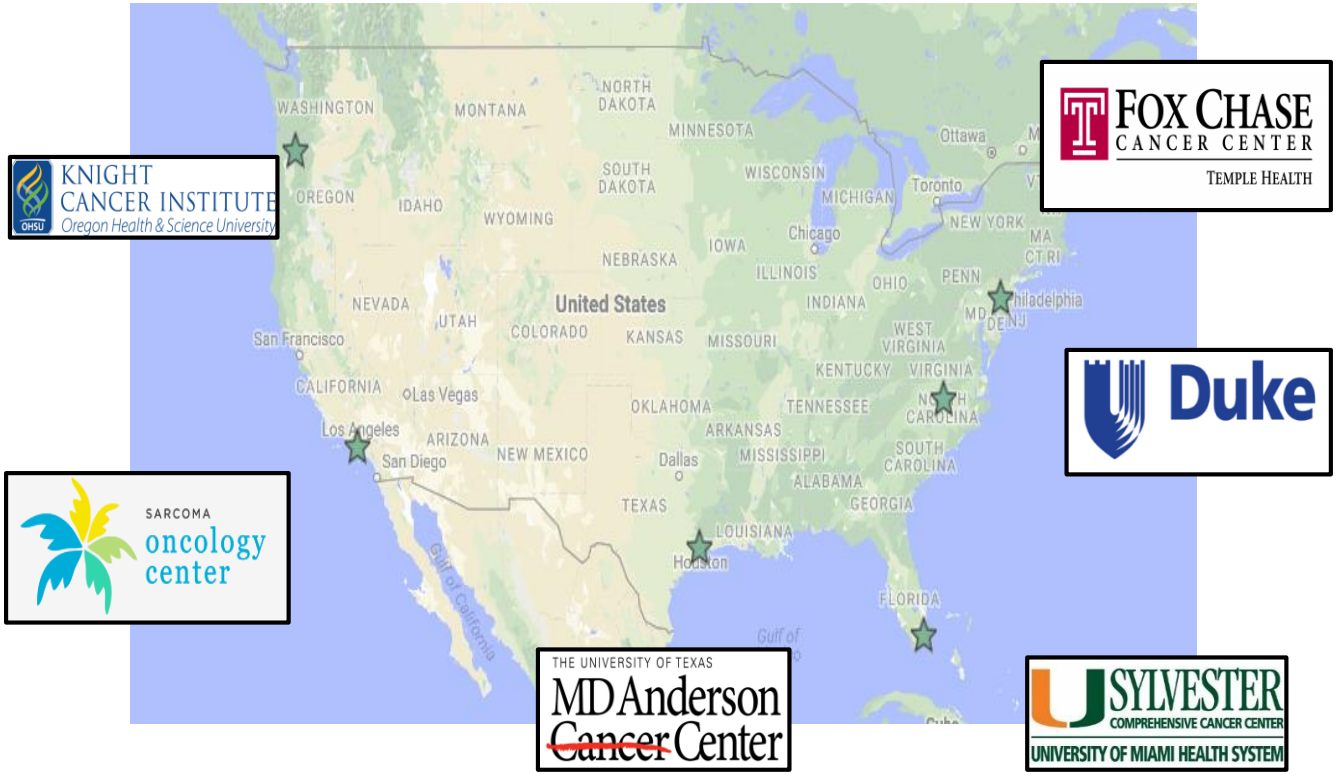
- PDGFRα D842V mutant GIST
- Disease progression within 6 months of randomization

Key Endpoints:

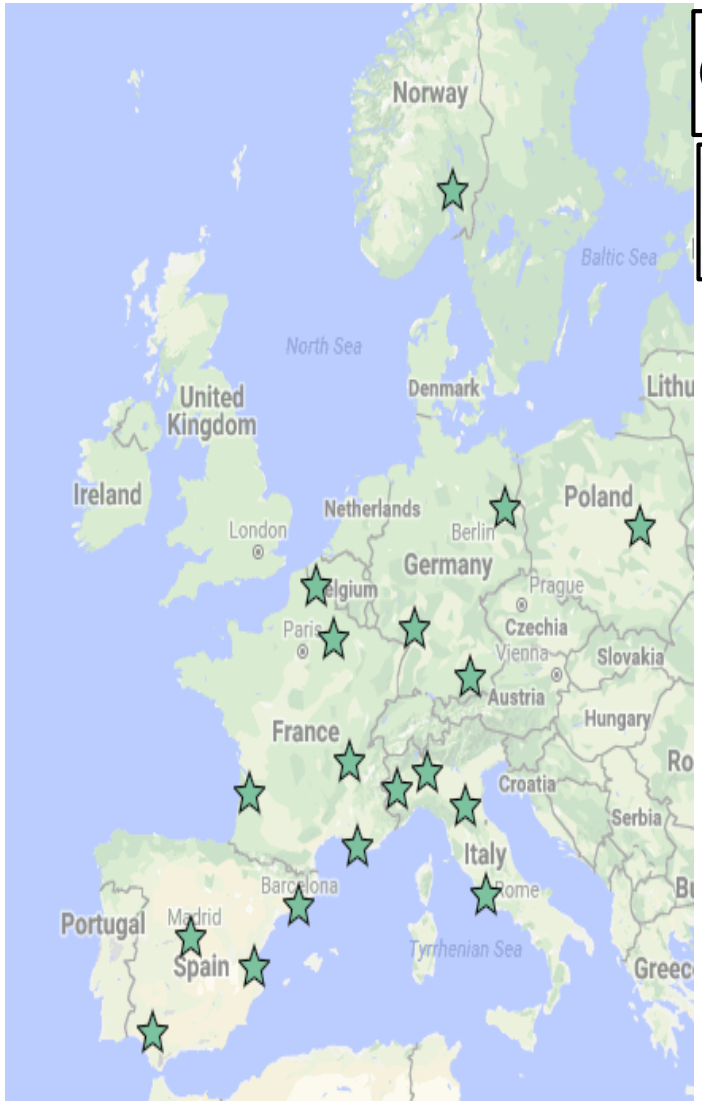
- Primary: Progression-free Survival (PFS)
- Secondary: Overall survival (OS), Objective Response Rate (ORR)

Sponsor: Arog Pharmaceuticals, Inc. – Dallas, TX USA
Sample Size: 120 Patients
Number of Planned Sites: 30 – 45 (Europe, North America, and Asia-Pacific)

ARO-012 Study Update – 6 active sites in the US



ARO-012 Study Update – 18 active sites in Europe



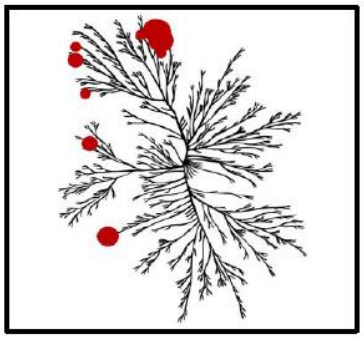
TAKE HOME MESSAGES
'NEW' DRUGS

1. **For wildtype patients: do not forget to test for NTRK gene fusions & find a trial/treatment with a NTRK inhibitor (one example is Larotrectinib).**
2. **For patients with a PDGFRA D842V mutation: finding a trial with Crenolanib or Avapritinib (BLU-285) could potentially increase PFS and OS.**
3. **For patients with KIT resistance mutations Avapritinib (BLU-285) has a worthwile disease controle rate of 70% after 3+ lines. The phase I dose expansion in 2L and the phase III study in 3rd line vs regorafenib are enrolling.**

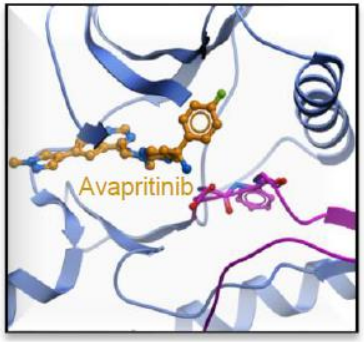
AVAPRITINIB (BLU-285)
A POTENT INHIBITOR OF KIT AND PDGFRA

Avapritinib has broad activity against a spectrum of clinically relevant mutations

		BLU-285 IC_{50}	Imatinib IC_{50}
KIT Exon 11 deletion	JM domain mutations	0.6 nM	12 nM
KIT Exon 11 V560G		1 nM	87 nM
KIT Exon 11/13	ATP binding site mutations	11 nM	9160 nM
KIT Exon 11/14		28 nM	19650 nM
KIT Exon 17	Activation loop mutations	<2 nM	60–12750 nM
KIT Exon 17 D816V		0.27 nM	8150 nM
PDGFRα Exon 18 D842V		0.24 nM	759 nM



• High kinome selectivity*



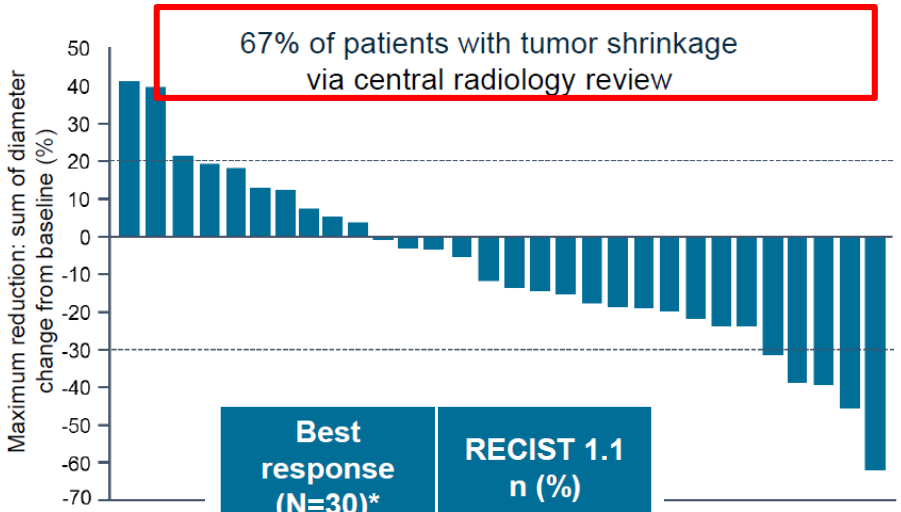
• Binds active conformation

Evans EK et al. Sci Transl Med. 2017 Nov 1;9(414)

AVAPRITINIB (BLU-285)
A POTENT INHIBITOR OF KIT AND PDGFRA

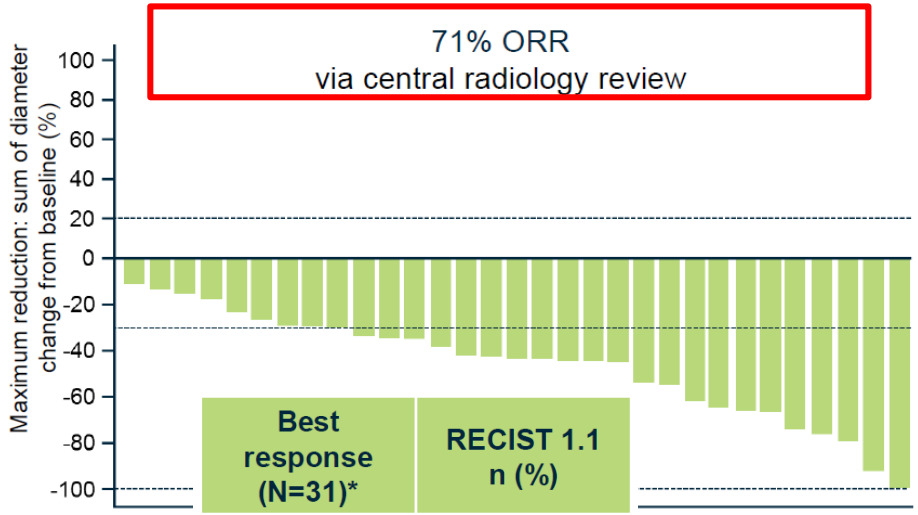
- **NAVIGATOR: Phase I Study of Avapritinib (BLU-285) in GIST**

3L+ KIT-driven GIST



Best response (N=30)*	RECIST 1.1 n (%)
PR	5 (17)^
SD	18 (60)
DCR (PR+SD)	23 (77)
PD	7 (23)

PDGFRα D842-m GIST



Best response (N=31)*	RECIST 1.1 n (%)
CR	1 (3)^
PR	21 (68)†
CR+PR	22 (71)
SD	9 (29)
DCR (PR+SD)	31 (100)
PD	0

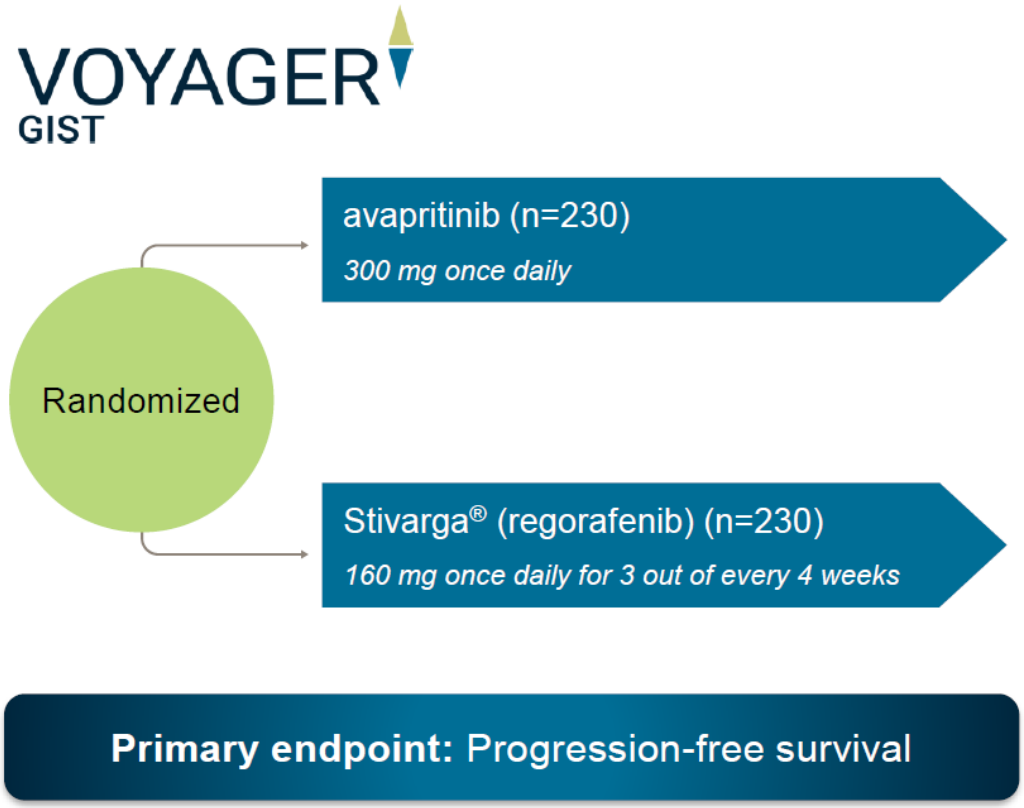
Data previously presented in November 2017 at the CTOS Annual Meeting.

AVAPRITINIB (BLU-285)
CURRENT UPDATE

- Plan to submit initial New Drug Application to U.S. FDA for PDGFRA-and 4L KIT-driven GIST in 1H 2019
- Navigator Phase I trial 2L cohort still enrolling
- Voyager Phase III trial enrolling

AVAPRITINIB (BLU-285)
CURRENT UPDATE

Phase 3 VOYAGER trial now enrolling patients with 3L and 4L GIST



Design

- Open-label, randomized, phase 3 clinical trial
- Patients randomized to receive either avapritinib or Stivarga® (regorafenib)
- Patients assigned to receive regorafenib may cross over to receive avapritinib following confirmed disease progression

Eligibility

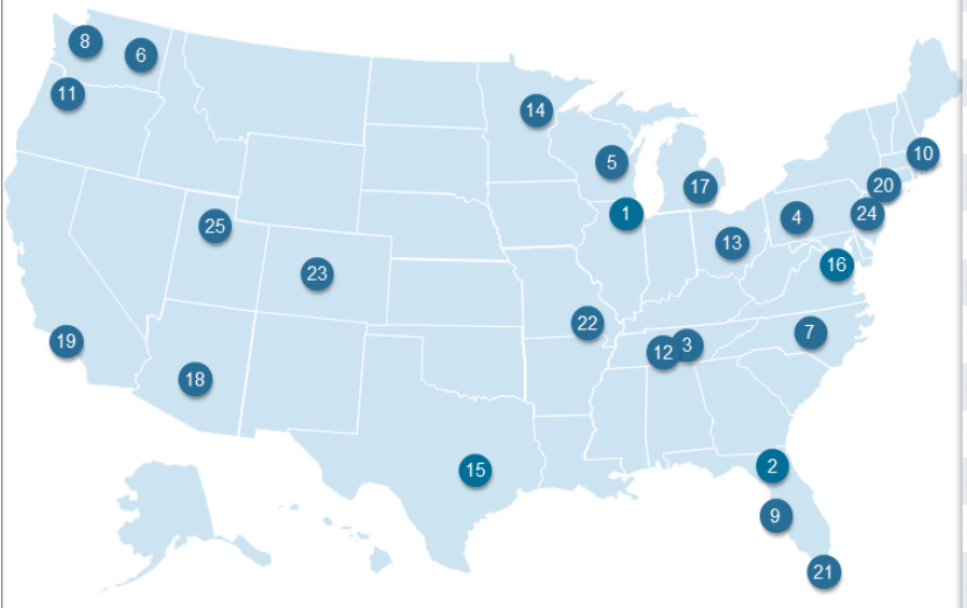
- Aged 18 years or older
- Metastatic and/or unresectable GIST
- Have received Gleevec® (imatinib) and 1 or 2 other kinase inhibitors

More Information

- Website: www.VoyagerTrial.com
- Email: studydirector@blueprintmedicines.com

AVAPRITINIB (BLU-285)
CURRENT UPDATE

Phase 3 VOYAGER: US trial sites



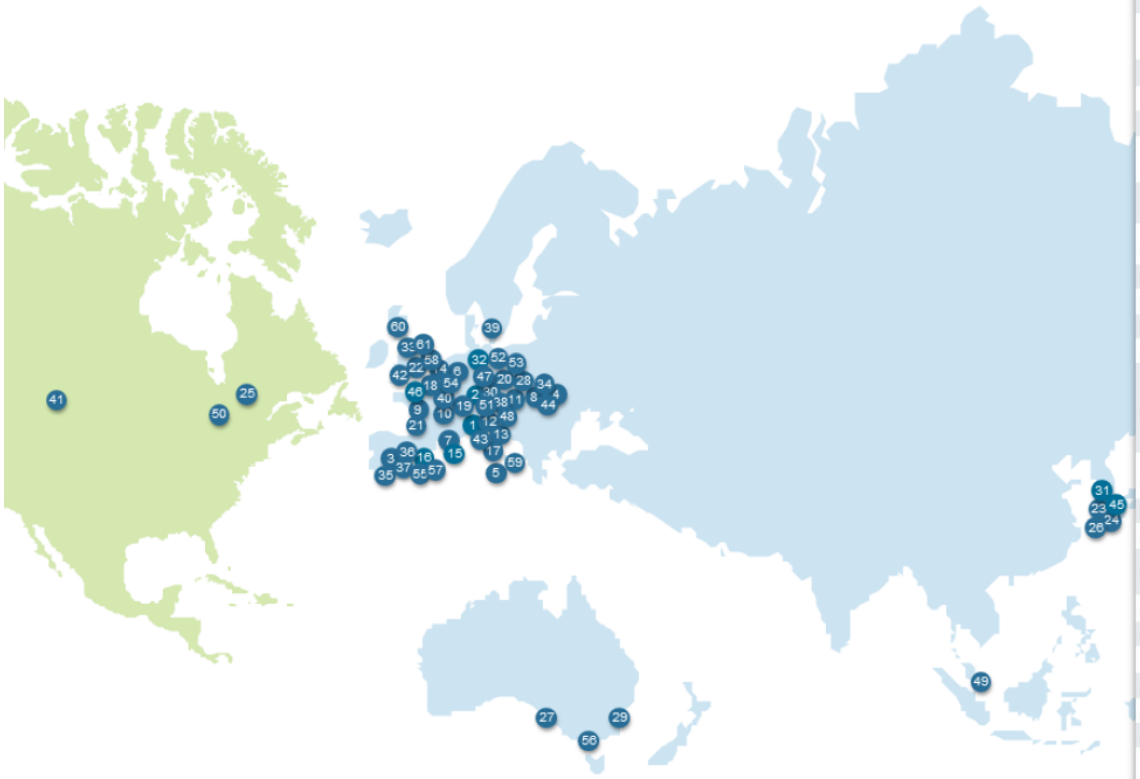
	Trial Site	Location
1	Northwestern Medicine	Chicago, IL
2	Mayo Clinic - Florida	Jacksonville, FL
3	Tennessee Oncology	Nashville, TN
4	UPMC Hillman Cancer Center	Pittsburgh, PA
5	Medical College of Wisconsin/Froedtert Hospital	Milwaukee, WI
6	Summit Cancer Centers	Spokane, WA
7	Duke University Medical Center	Durham, NC
8	Fred Hutchinson Cancer Research Center	Seattle, WA
9	Moffitt Cancer Center	Tampa, FL
10	Dana-Farber Cancer Institute	Boston, MA
11	Oregon Health & Science University	Portland, OR
12	Tennessee Oncology	Nashville, TN
13	Ohio State University The James Cancer Hospital and Solove Research Institute	Columbus, OH
14	Mayo Clinic - Rochester	Rochester, MN

	Trial Site	Location
15	MD Anderson Cancer Center - University of Texas	Houston, TX
16	Medstar Washington Hospital Center	Washington, DC
17	University of Michigan Comprehensive Cancer Center	Ann Arbor, MI
18	Mayo Clinic	Phoenix, AZ
19	UCLA	Los Angeles, CA
20	Memorial Sloan Kettering Cancer Center	New York, NY
21	University of Miami-Sylvester Comprehensive Cancer Center	Miami, FL
22	Washington University in Saint Louis	Saint Louis, MO
23	University of Colorado Hospital Aurora	Aurora, CO
24	Fox Chase Cancer Center	Philadelphia, PA
25	Huntsman Cancer Institute	Salt Lake City, UT

Some sites may be subject to activation or closure. See Clinicaltrials.gov for the latest information.
A **travel support program** is available to qualifying patients and caregivers and includes reimbursement of eligible local and long-distance travel and lodging.

AVAPRITINIB (BLU-285)
CURRENT UPDATE

Phase 3 VOYAGER: ex-US trial sites



1	Candiolo Cancer Institute - FPO, IRCCS	Candiolo, Italy
2	Universitaetsklinikum Frankfurt, Medizinische Klinik II	Frankfurt, Germany
3	Hospital Universitario Gregorio Maranon	Madrid, Spain
4	Medical Oncology University Debrecen	Debrecen, Hungary
5	Policlinico Universitario-Oncologia Medica	Palermo, Italy
6	Universitaetsklinikum Essen	Essen, Germany
7	Institut Paoli Calmettes	Marseille, France
8	Fovarosi Onkormanyzat Szent Laszlo Korhaz	Budapest, Hungary
9	Centre Rene Gauducheau	St Herblain, France
10	Unicancer Lyon Centre Leon Berard	Lyon, France
11	AKH, Klinik f. Innere Med. I, Onkologie	Vienna, Austria
12	Fondazione IRCCS - Istituto Nazionale dei Tumori	Milano, Italy
13	The European Institute of Oncology (IEO)	Milano, Italy
14	Medizinische Klinik und Poliklinik I	Nijmegen, Netherlands
15	La Timone University Hospital	Marseille, France
16	Institut Catala d'Oncologia L'Hospitalet	Barcelona, Spain
17	AOU Careggi	Toscana, Italy
18	Institut Jules Bordet	Brussels, Belgium
19	Universitaetsmedizin Mannheim, Chirurgische Klinik, Sektion Spez. Chirurgische Onkologie und Thoraxchirurgie, Haus 3, Ebene 2	Mannheim, Germany
20	Dolnoslaskie Centrum Onkologii we Wrocawiu	Wrodaw, Poland
21	Institut Bergonié	Bordeaux, France
22	The Royal Marsden Hospital	London, UK
23	Ajou University Hospital	Suwon-si, South Korea
24	Asan Medical Center	Seoul, South Korea
25	Jewish General Hospital	Montreal, Canada
26	Severance Hospital	Seoul, South Korea
27	Flinders Medical Center	Adelaide, Australia
28	University Hospital	Krakow, Poland
29	Canberra Hospital	Garran, Australia
30	Medizinische Fakultät "Carl Gustav Carus" der Technischen Universität Dresden, Medizinische Klinik und Poliklinik I	Dresden, Germany
31	Seoul National University Hospital	Seoul, South Korea
32	Onkologische Schwerpunktpraxis	Luebeck, Germany
33	Christie Hospital NHS Trust	Manchester, UK
34	University of Pecs	Pecs, Hungary
35	Hospital Universitario Virgen del Rocio	Sevilla, Spain
36	Hospital Universitario Miguel Servet	Zaragoza, Spain
37	Hospital Universitario La Paz	Madrid, Spain
38	University Hospital	Olomouc, Czech Republic
39	Lund University Hospital	Lund, Sweden
40	Gustave Roussy Cancer Campus	Villejuif, France
41	Cross Cancer Institute	Edmonton, Canada
42	Guy's Hospital	London, UK
43	Azienda Ospedaliera S. Orsola-Malpighi	Bologna, Italy
44	MH EK - Medical Centre Hungarian Defence Forces	Budapest, Hungary
45	Samsung Medical Center	Seoul, South Korea
46	Centre Oscar Lambret	Lille, France
47	HELIOS Klinikum Bad Saarow	Bad Saarow, Germany
48	Fakultni nemocnice v Motole	Prague, Czech Republic
49	National Cancer Centre Singapore	Singapore
50	University Health Network	Toronto, Canada
51	HELIOS Klinikum Berlin-Buch	Berlin, Germany
52	Samodzielny Publiczny Zakład	Woj. Warmińsko-Mazurskie, Poland
53	Maria Skodowska Curie Memorial Cancer Centre and Institute of Oncology	Warsaw, Poland
54	Leuven Cancer Institute	Leuven, Belgium
55	Hospital de la Santa Creu i Sant Pau	Barcelona, Spain
56	Monash Health	Clayton, Australia
57	Hospital Universitari Vall d'Hebron	Barcelona, Spain
58	Erasmus MC Cancer Institute	Rotterdam, Netherlands
59	Campus Bio-Medico	Roma, Italy
60	Beatson West of Scotland Cancer Centre	Glasgow, UK
61	Sheffield Teaching Hospitals NHS Foundation Trust	Sheffield, UK

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‘NEW’ DRUGS

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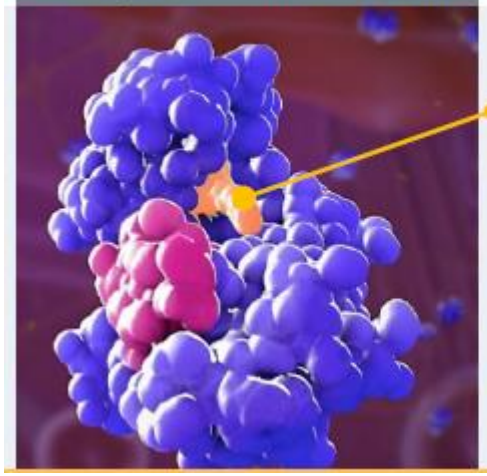
2. **For patients with a PDGFRA D842V mutation: finding a trial with Crenolanib or Avapritinib (BLU-285) could potentially increase PFS and OS.**
3. **For patients with KIT resistance mutations Avapritinib (BLU-285) has a worthwile disease controle rate of 70% after 3+ lines. The phase I dose expansion in 2L and the phase III study in 3rd line (vs regorafenib) are enrolling.**
4. **For patients with KIT resistance mutations DCC-2618 has a worthwile disease controle rate of 77 % after 3+ lines (150 pts) in Phase I. A phase III study after 3 lines (vs placebo) and a phase III study in second line (vs sunitinib) are enrolling (soon).**

DCC-2618
A SWITCH CONTROL INHIBITOR

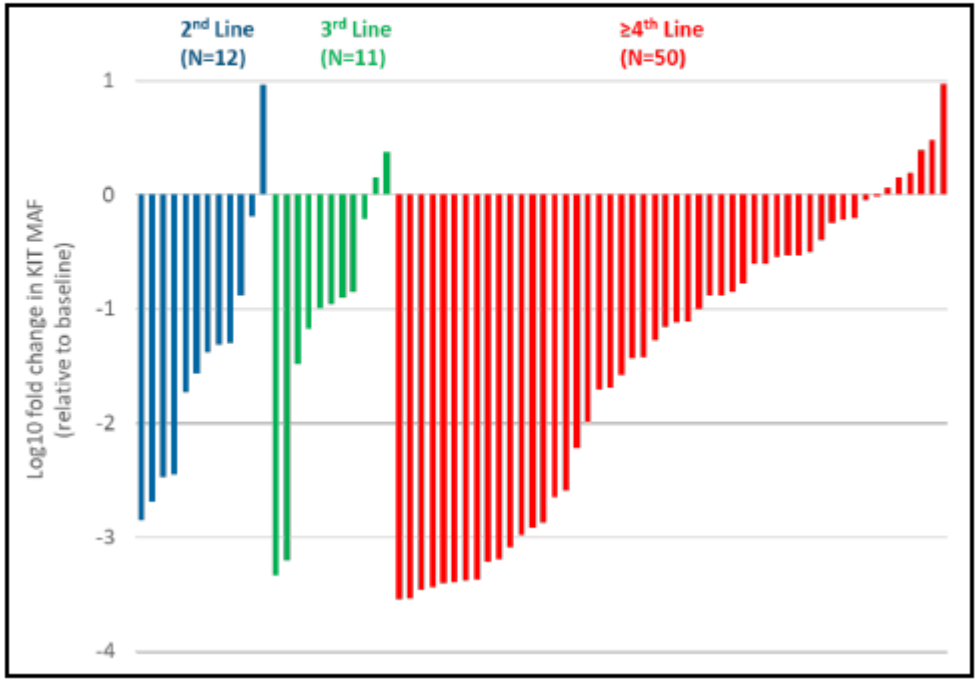
Deciphera Switch Control



- Switch control inhibitor embeds deeply into switch pocket
- Inhibits switch activation

Cumulative Reductions in Circulating MAF of KIT Exons 9, 11, 13, 14, 17 and 18 by Lines of Therapy (n=73)[1]

(Note log scale: -1 = 10-fold reduction, -2 = 100-fold reduction)



DCC-2618
A SWITCH CONTROL INHIBITOR

DCC-2618 Phase 1 Trial

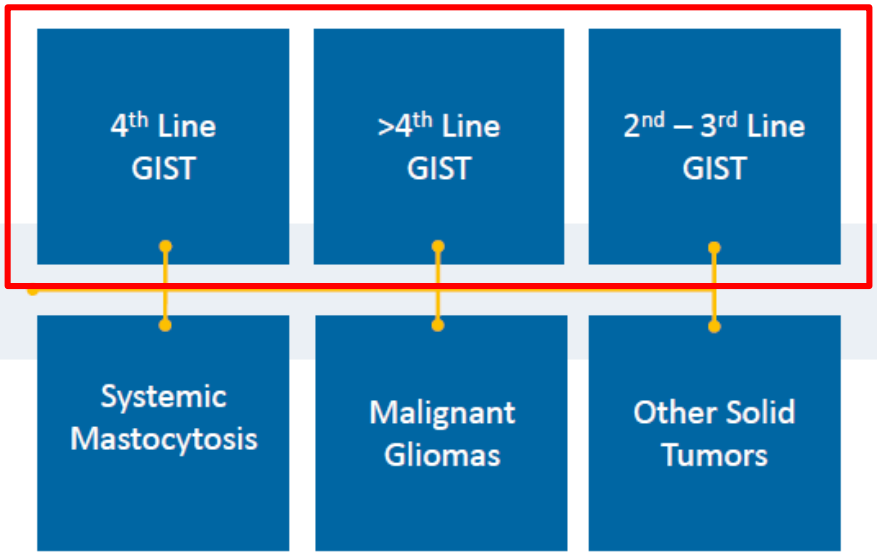
Part 1: Dose Escalation

- Key Objectives: MTD, recommended Phase 2 dose, safety, tolerability, pharmacokinetics and anti-tumor activity
- Design: 3+3 design with enrichment of targeted patients
- Dose Levels: 20, 30, 50, 100, 150, and 200 mg BID; and 100, 150 and 250 mg QD
- MTD: not determined

Advanced Malignancies (n=68) → Recommended Dose 150 mg QD

Part 2: Dose Expansion

- 6 cohorts enrolling 200 pts

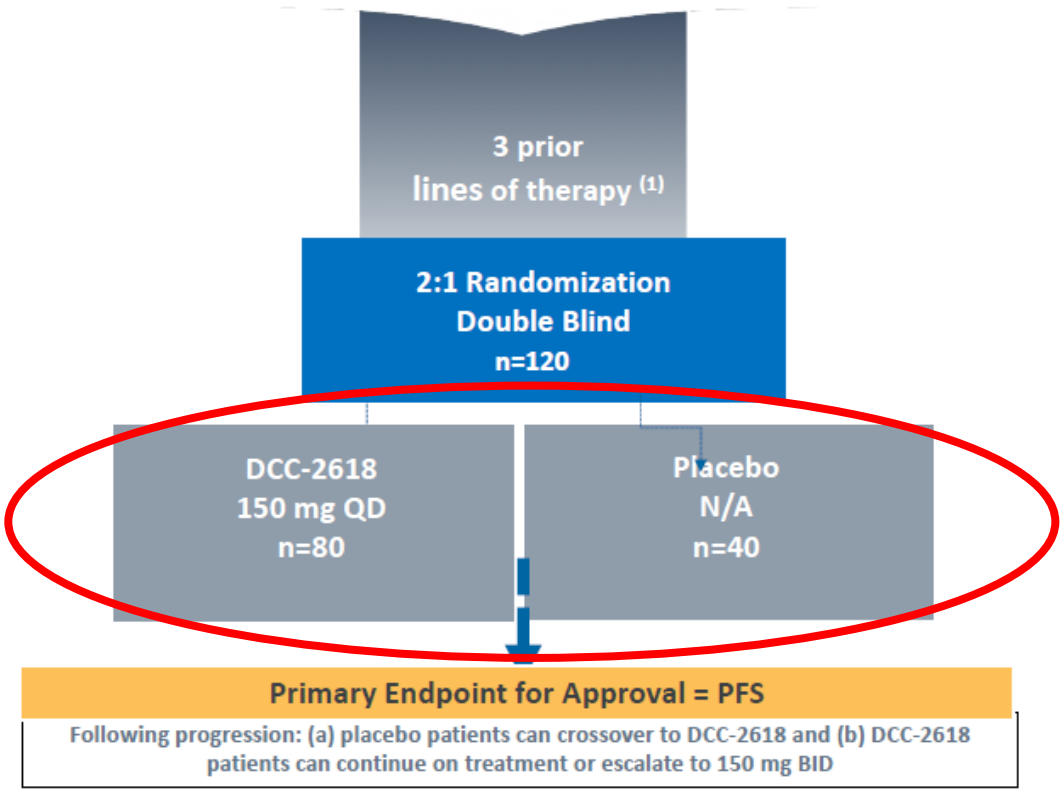


Disease Controle Rate
at 3 months = 77% (150 pts)
ORR 15%

DCC-2618

CURRENT UPDATE

- Global Pivotal Phase 3 study ongoing → Invictus → after 3 lines



decīphera

DCC-2618

CURRENT UPDATE

Recruiting Now US, Canada, Europe, Australia and Singapore

- **Current US sites:**
  - Honor Health, AZ
  - USC, CA
  - UCLA, CA
  - Stanford, CA
  - Mayo Clinic, FL
  - Georgia Cancer Specialists, GA
  - U. of Chicago, IL
  - Dana Farber, MA
  - U of Minnesota, MN
  - Mayo Clinic, MN
  - Columbia, NY
  - Memorial Sloan Kettering, NY
  - Oregon Health and Science University, OR
  - Fox Chase, PA
  - MD Anderson, TX

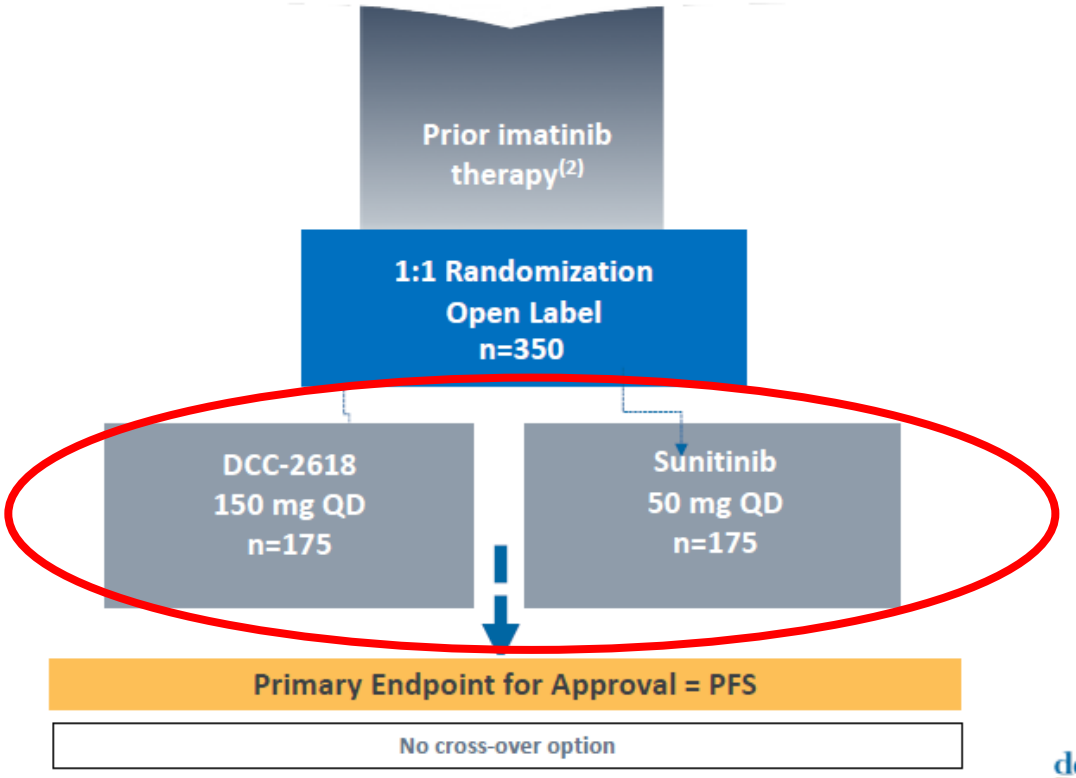
- **Canada**: Princess Margaret, Toronto and Cross Cancer Centre, Alberta
- **Australia**: Alfred University, Melbourne
- **EU:**
  - Belgium
  - France
  - Poland
  - Spain
  - UK
- **Singapore:** National Cancer Center

MORE SITES STILL TO OPEN IN US, GERMANY, NETHERLANDS, FINLAND AND ITALY

DCC-2618

CURRENT UPDATE

- Second Global Pivotal Phase 3 GIST Planned for 2H:18 → Intrigue → second line



TAKE HOME MESSAGES
'NEW' DRUGS

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5. **More:**
   a) **Masitinib studies will probably not continue and data reliability?**
   b) **Immunotherapy disappointing results**
   c) **Drugs in all comer phase I, still too litle data, but coming**

MORE

Masitinib:

- ABScience had to stop recruitment in all GIST masitinib studies in 2017 (first line, second line and adjuvant) by decision of the Health Authorities
- EMA inspection showed deviations from the GCP in the conduct of the mastocytosis study and deviations related to the pharmacovigilance system.

Immunotherapy

- Disappointing results

Phase I all-comer studies with GIST

- TNO155, a SHP2 inhibitor
- GSK525762, an inhibitor of the binding of BET proteins to acetylated histones
- etc

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CURRENT & UPCOMING CLINICAL TRIALS/ NEW TREATMENTS IN GIST

Current & upcoming clinical trials/ new treatments in GIST

Quadruple wildtype	Larotrectinib (LOXO-101) and LOXO-195
SDH deficient	Crenolanib (CP-868,596-26 or AR-868,596-26)
PDGFR D842V	Avapritinib (BLU-285)
KIT Exon 13-18:	DCC 2618
	Masitinib
	and more…

brief

Focus on current updates and study status

Optimize 'old' treatments in GIST

- Therapeutic Drug Monitoring (TDM)
- ctDNA as early biomarker for resistance/progression
- Database projects

TAKE HOME MESSAGES
‘OLD’ DRUGS

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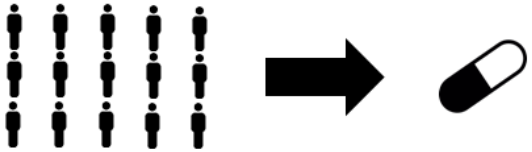
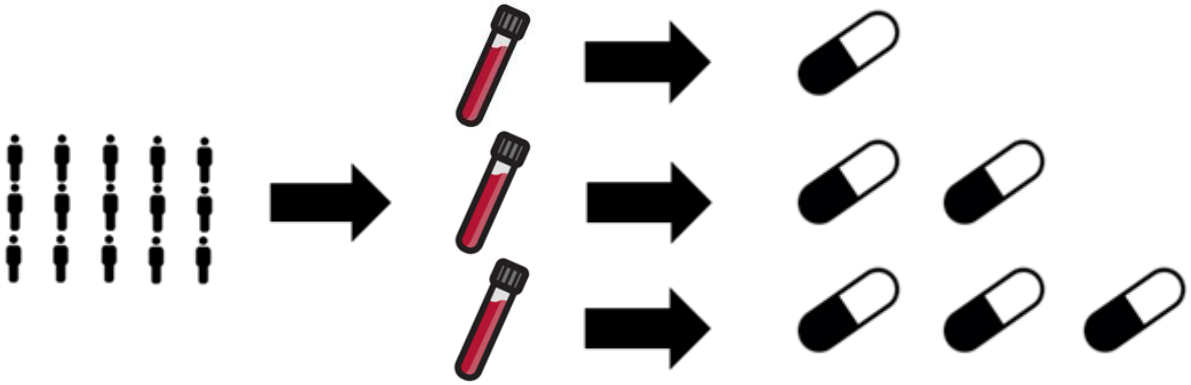
TDM: therapeutic drug monitoring

Adjusting the dose based on measured drug concentrations to improve treatment outcomes for individual patients



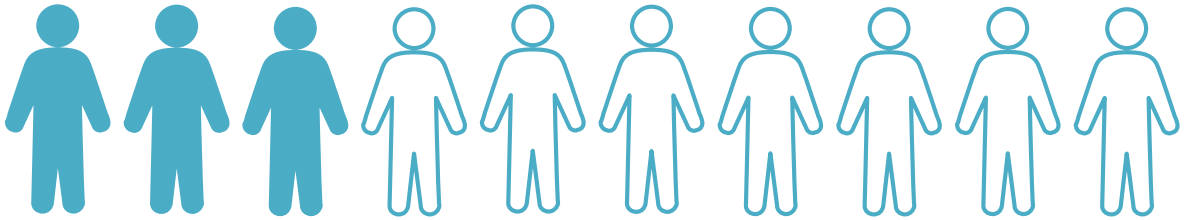
“one size fits all”



personalized dosing

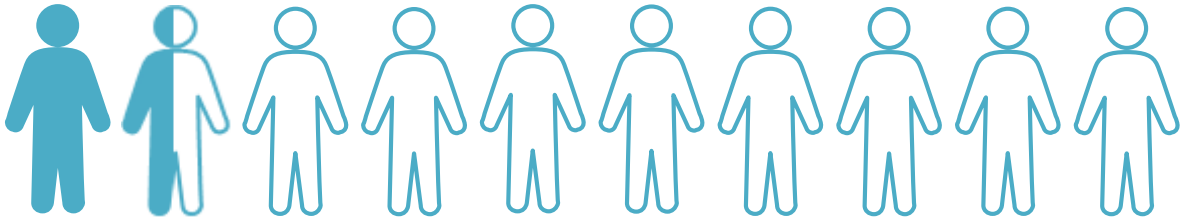
Problems with currently used fixed dose

- **30% of patients underdosed**



→ **suboptimal efficacy**

- **15% of patients overdosed**



→ **unnecessary toxicity**

Individualized dosing based on therapeutic drug monitoring

Why should we do TDM?

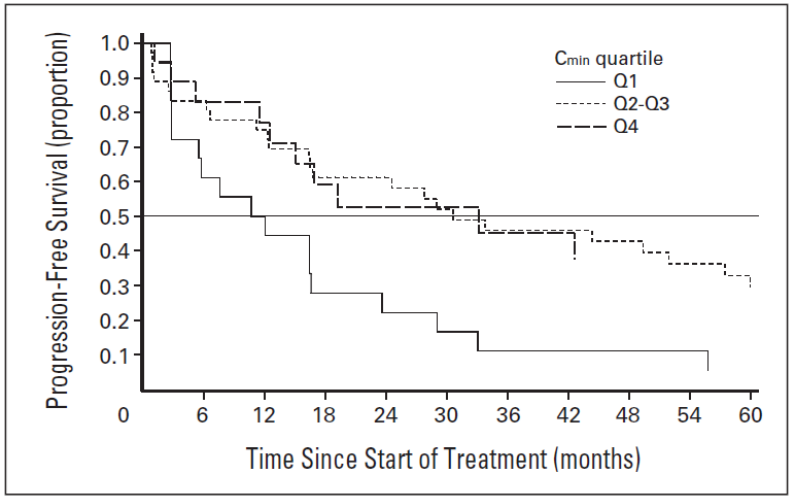


Fig 3. Time to progression by imatinib day 29 trough level (C_{min}) quartile (Q).

Imatinib

C_{min} ≥ 1100 ng/mL → ↑PFS

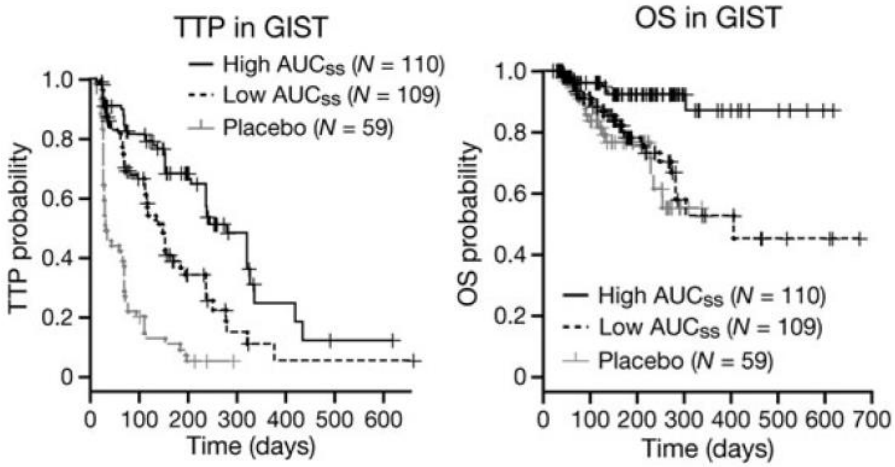
11.3 vs. 30.6 months (p = 0.0029)

Demetri et al (JCO, 2009)

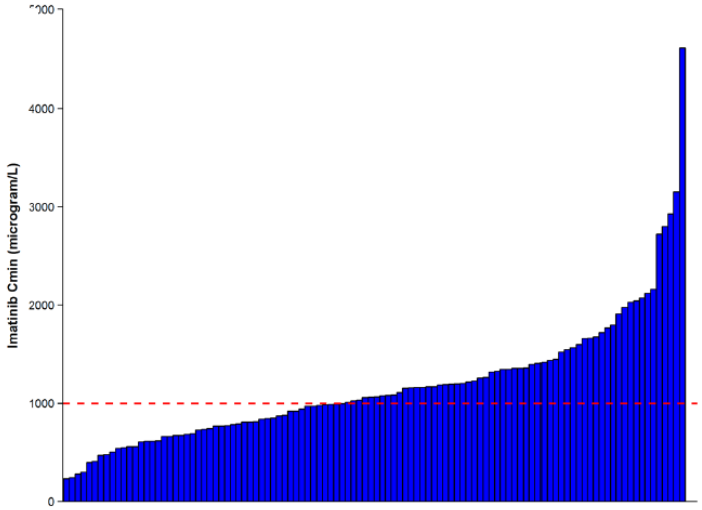
Sunitinib

↑AUC → ↑TTP + ↑OS

Houk et al (CCP, 2010)



How many patients have concentrations below target?



Imatinib

32.4% of patients has C_{min} < 1000 ng/mL in > 75% of samples

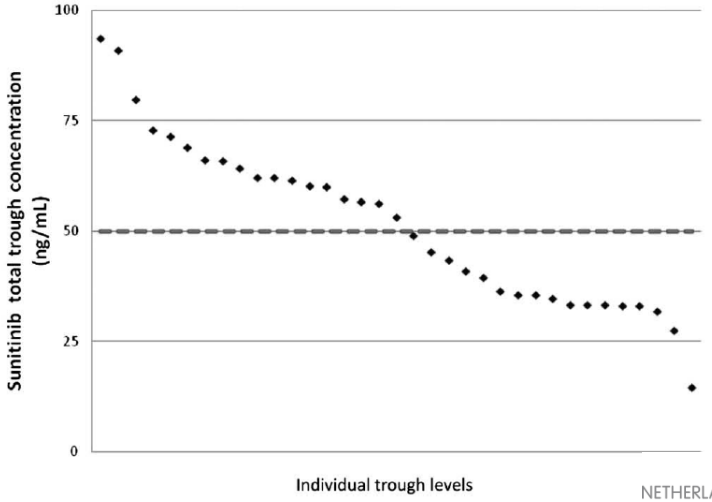
Farag et al (Clin Pharmacokinet, 2017)

Sunitinib

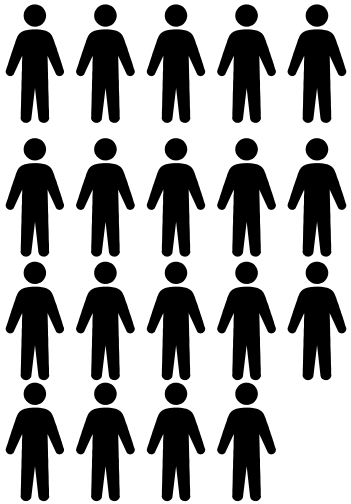
No data available for GIST patients

However, for renal cell carcinoma:
49.6% of patients has C_{min} < 50 ng/mL

Lankheet et al (TDM, 2014)

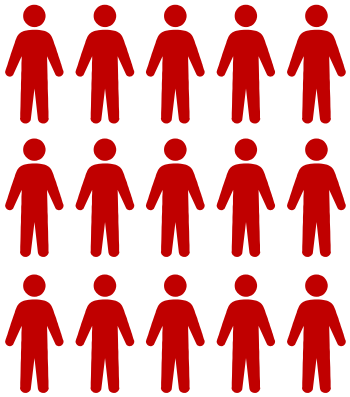


DPOG-TDM study



19 imatinib patients

4 patients
adequate PK



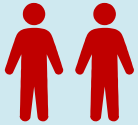
15 patients
low PK

n = 10

dose increased
to 600 mg QD

n = 2

dose increased
to 400 mg BID



n = 2

dose escalation
not feasible due
to toxicities

n = 1

TDM advice not
followed by
physician

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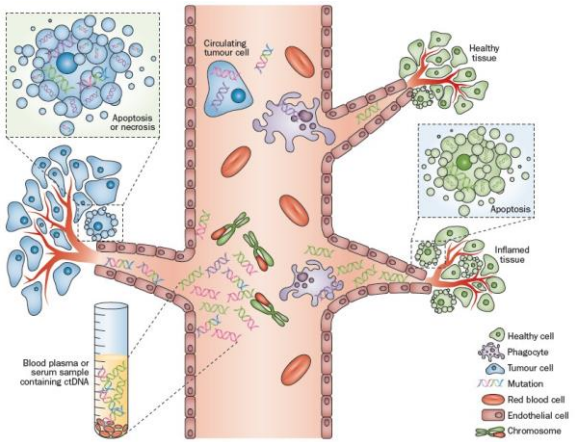
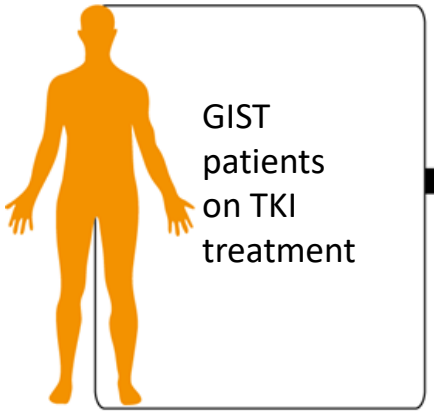
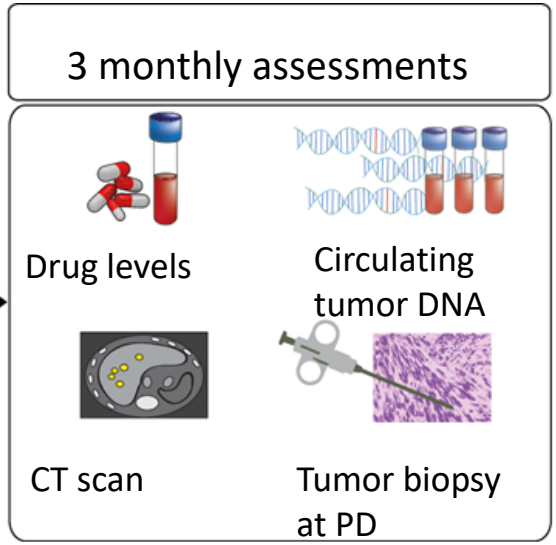
GALLOP

Assessment of Mutations in Tumors and in Circulating Tumor DNA (ctDNA)







Clinical trials: NCT02331914

umcg

Erasmus MC
Universitair Medisch Centrum Rotterdam

ANTONI VAN LEEUWENHOEK
NEDERLANDS KANKER INSTITUUT

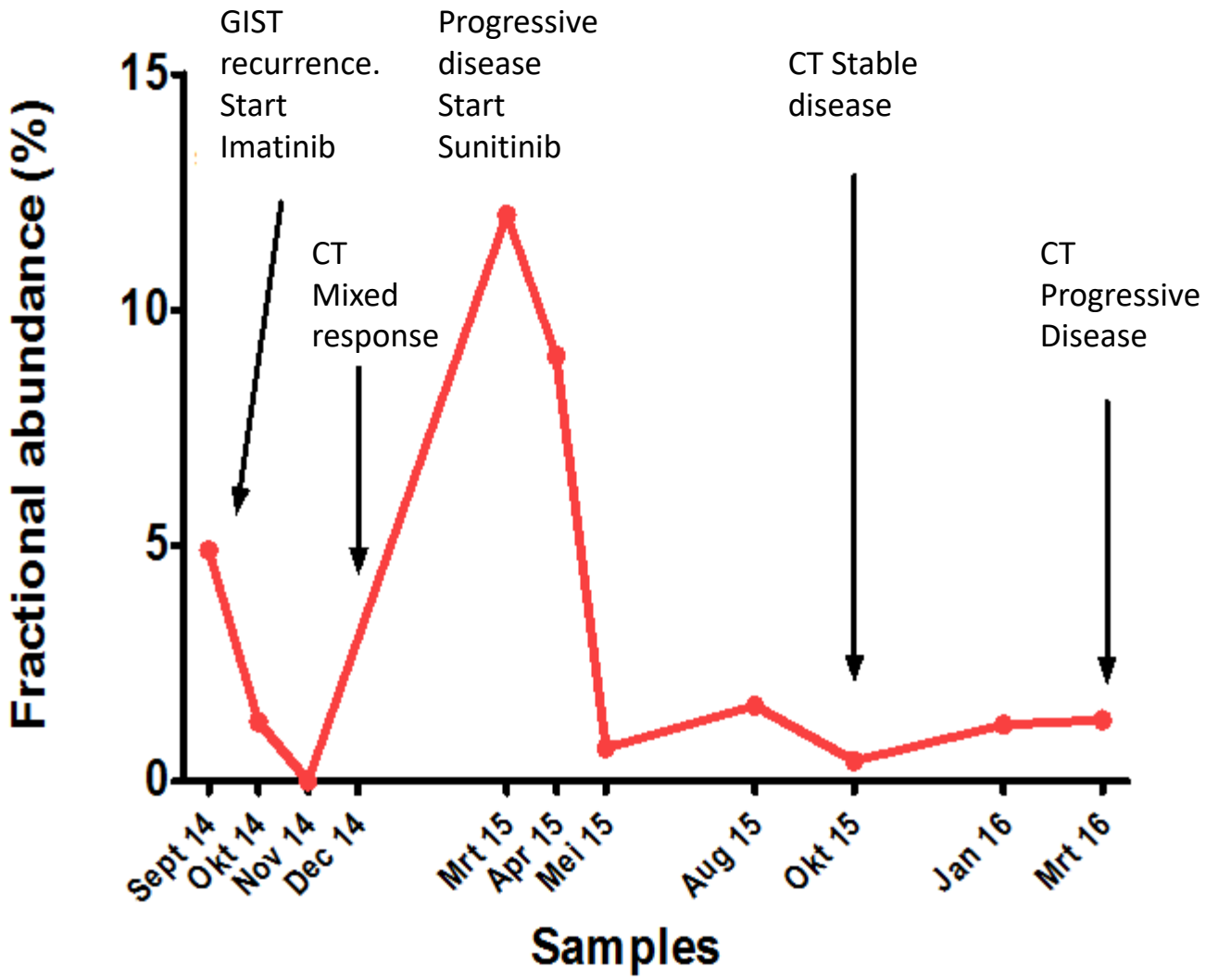
Radboudumc
university medical center

LUMC Leids Universitair Medisch Centrum

Preliminary results

- A method was developed to detect primary mutations in tumor tissue and ctDNA (digital droplet PCR for most common exon 11 mutations, Boonstra et al. 2018)
- 263 patients included
- > 1250 ctDNA and PK samples

Preliminary results: Patient detail



Future plans

- Optimize ddPCR assay detection quality
- Develop assays for secondary mutations

- *SPIRIT study*: prospective, randomized trial to compare PFS between early adaptation- and conventional group.

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DUTCH GIST REGISTRY (REGISTER)

- **Longitudinal data on >1000 GIST patients**
- **Including data on medical history, pathology results, response, medication, drug levels etc**

Multiple database projects and publications

DUTCH GIST REGISTRY (REGISTER)

European Journal of Cancer 76 (2017) 76–83

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.ejcancer.com

Original Research

Clinical characteristics and treatment outcome in a large multicentre observational cohort of *PDGFRA* exon 18 mutated gastrointestinal stromal tumour patients

Sheima Farag [a,1], Neeta Somaiah [b,1], Haesun Choi [c], Birthe Heeres [d], Wei-Lien Wang [e], Hester van Boven [f], Petra Nederlof [f], Robert Benjamin [b], Winette van der Graaf [g], Dirk Grunhagen [h], Pieter A. Boonstra [i], Anna K.L. Reyners [i], Hans Gelderblom [j], Neeltje Steeghs [a,*]

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Clinical characteristics and treatment outcome in a large multicentre observational cohort of *PDGFRA* exon 18 mutat

Sheima
Wei-Lie
Winette
Anna K

Early Evaluation of Response Using ^{18}F-FDG PET Influences Management in Gastrointestinal Stromal Tumor Patients Treated with Neoadjuvant Imatinib

Sheima Farag[1], Lioe-Fee de Geus-Oei[2,3], Winette T. van der Graaf[4,5], Frits van Coevorden[6], Dirk Grunhagen[7], Anna K.L. Reyners[8], Pieter A. Boonstra[8], Ingrid Desar[4], Hans Gelderblom[9], and Neeltje Steeghs[1]

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ELSEVIER

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Sheima Farag[1], Lioe-Fee de Geus-O
Anna K.L. Reyners[8], Pieter A. Boon

European Journal of Cancer 86 (2017) 318–325

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.ejcancer.com

ELSEVIER

Original Research

Elderly patients with gastrointestinal stromal tumour (GIST) receive less treatment irrespective of performance score or comorbidity – A retrospective multicentre study in a large cohort of GIST patients

Sheima Farag [a], Frits van Coevorden [b], Esther Sneekes [a], Dirk J. Grunhagen [c], Anna K.L. Reyners [d], Pieter A. Boonstra [d], Winette T. van der Graaf [e,f], Hans J. Gelderblom [g], Neeltje Steeghs [a,*]

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Thank you

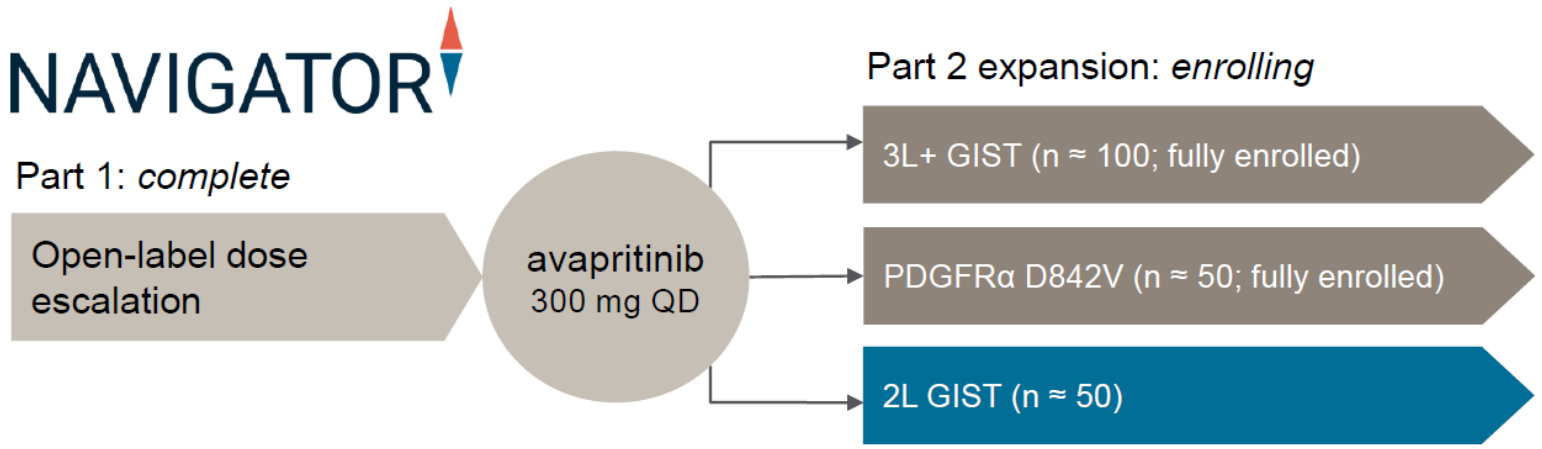
Q&A

Contact: n.steeghs@nki.nl

Back-up slide

AVAPRITINIB (BLU-285)
A POTENT INHIBITOR OF KIT AND PDGFRA

- NAVIGATOR: Phase I Study of Avapritinib (BLU-285) in GIST (dose expansion ongoing).



Clinical activity	Safety
• Robust clinical activity across spectrum of KIT and PDGFRα genotypes	• Most AEs reported by investigators were Grade 1 or 2 • Grade ≥3 treatment-related AEs reported in 39 patients (34%) • Only 6 patients (5%) discontinued treatment due to AEs