UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported): February 8, 2022

Deciphera Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**001-38219**	**30-1003521**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

200 Smith Street, Waltham, Massachusetts	**02451**
(Address of principal executive offices)	**(Zip code)**

Registrant's telephone number, including area code: (781) 209-6400

(Former name or former address, if changed from last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 203.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Exchange Act:

Title of each class	Trading Symbol	Name of exchange on which registered
Common Stock, $0.01 Par Value	**DCPH**	**Nasdaq Global Select Market**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 2.02. Results of Operations and Financial Condition.

On February 8, 2022, Deciphera Pharmaceuticals, Inc. (the "Company") hosted an earnings call to discuss its financial results for the year and the quarter ended December 31, 2021, as well as to provide a corporate update. A copy of the transcript for the earnings call is furnished hereto as Exhibit 99.1 and is incorporated herein by reference.

The information in this Item 2.02 of this Current Report on Form 8-K (including Exhibit 99.1 attached hereto) is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

99.1	Transcript of earnings call conducted on February 8, 2022
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: February 11, 2022

DECIPHERA PHARMACEUTICALS, INC.

By: /s/ Steven L. Hoerter
Name: Steven L. Hoerter
Title: President and Chief Executive Officer

Exhibit 99.1

Deciphera Pharmaceuticals, Inc.
EDITED TRANSCRIPT
Q4 2021 & FY 2021 Earnings Call
Event Date/Time: February 8, 2022 / 4:30 pm ET

Operator

Good afternoon, everyone, and welcome to the Deciphera Pharmaceuticals Fourth Quarter and Full Year 2021 Financial Results Conference Call. Today's call is being recorded. At this time, I would like to turn the call over to Maghan Meyers, Senior Vice President at Argot Partners. Maghan?

Maghan Meyers

Thank you, operator. Welcome, and thank you for joining us today to discuss Deciphera's fourth quarter and full year 2021 financial results. I'm Maghan Meyers with Argot Partners. With me this afternoon to discuss the financial results and provide a general corporate update are Steve Hoerter, President and Chief Executive Officer; Dan Martin, Chief Commercial Officer; and Tucker Kelly, Chief Financial Officer.

Before we begin, I would like to remind you that any statements we make on this call that are not historical facts are forward-looking statements reflecting the current beliefs and expectations of management made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Examples of forward-looking statements made during this conference call include our expectations for our preclinical and clinical programs, our commercialization of QINLOCK and 2022 guidance. Forward-looking statements made on this call involve substantial risks and uncertainties that could cause actual results to differ materially from those expressed or implied by the forward-looking statements, and we cannot assure you that our expectations will be achieved.

Such risks and uncertainties include those set forth in our most recent annual report on Form 10-K as well as our other SEC filings. We assume no obligation to update or revise any forward-looking statements. Following this call, a replay will be available on the company's website, www.deciphera.com.

With that, I will now turn the call over to Steve Hoerter, President and Chief Executive Officer of Deciphera. Steve?

Steven L. Hoerter
President, CEO & Director

Thank you, Maghan, and good afternoon, everyone. Thank you for joining us today as we provide an update from the fourth quarter, review actual results and look to the year ahead. We began 2022 with a successful commercial franchise, a portfolio of first-in-class and best-in-class product candidates and a productive research engine that continues to fuel our future growth.

Earlier this year, we outlined our key strategic priorities for the year, which include maximizing the value of QINLOCK and GIST in the U.S. and successfully launching this important medicine in fourth-line GIST in key European markets, rapidly enrolling the Phase III registration-enabling study of vimseltinib in tenosynovial giant cell tumor, or TGCT, and presenting an update from the ongoing Phase I/II study of vimseltinib in this disease.

For DCC-3116, our first-in-class ULK inhibitor, presenting initial monotherapy data from the Phase I study and initiating the trametinib combination part of the study, and finally, declaring a development candidate from our ongoing pan-RAF inhibitor research program. We're excited about our milestones for 2022 as we continue to advance our mission and build long-term shareholder value.

Let me begin today with an update on our pipeline. We have begun enrollment in the Phase III registration-enabling MOTION study for vimseltinib, a potential best-in-class CSF-1 receptor inhibitor for the treatment of TGCT. Patients with TGCT experienced a significant disease burden and often present with multiple symptoms, including significant pain, stiffness and limitations in joint function. Vimseltinib has demonstrated clear clinical proof of concept in an ongoing Phase I/II study in TGCT patients. At the European Society for Medical Oncology

meeting last year, we presented data from the dose escalation cohorts from the Phase I portion of the study and initial results from the Phase II expansion cohort showing that treatment with vimseltinib resulted in a 47% objective response rate, including a complete response in 1 patient.

We believe these data reflects how potent and selective vimseltinib is for the CSF-1 receptor and the potential for this product candidate to offer meaningful benefit to patients with TGCT. Patients in the more mature dose escalation portion of the study had impressive durability on treatment. And as of the data cutoff, the average time on therapy was 10.7 months and 72% of patients remained active on treatment. Importantly, the initial safety and tolerability profile for vimseltinib was promising with the majority of treatment-emergent adverse events being grade 1 or 2. We look forward to building on and expanding these results with updated safety and efficacy data from the ongoing Phase I/II study later this year.

Based on these compelling data, we designed the Phase III registration-enabling MOTION study of vimseltinib in TGCT and announced in January that enrollment was underway. The study is expected to enroll 120 patients at over 40 sites globally. Patients will be randomized 2:1 vimseltinib compared to placebo with the primary endpoint of response rate at 25 weeks.

We are leaders in exploring the role of autophagy as a broad resistance mechanism in cancer. And DCC-3116, our first-in-class ULK inhibitor has the potential to benefit a significant number of cancer patients by targeting ULK, the initiating factor in the autophagy pathway. There is a growing body of research demonstrating the key role autophagy plays in tumor growth, and we have built an industry-leading position in targeting this pathway.

Autophagy is the catabolic process in which cells recycle their components as a source of energy, and cancer cells activate this pathway as an escape mechanism due to anticancer therapy. Receptor tyrosine kinase, or RTK, RAS and MAP kinase pathway-driven cancers are known to have high basal levels of autophagy, which these cancers use to maintain nutrient supply and to regulate cancer cell metabolism and survival.

Autophagy has been observed to be upregulated in mutant cancers and is also known to mediate resistance to inhibitors of RTK, RAS and MAP kinase signaling pathways. The ULK kinase is the initiating factor in the pathway. And by inhibiting ULK with a potent and selective inhibitor such as 3116, we have the potential to target this important mechanism of resistance. We have now generated preclinical data, both independently and with academic collaborators, showing the ability of DCC-3116 to address autophagy induced by a variety of RTK, RAS and MAP kinase pathway inhibitors such as EGFR inhibitors, KRAS G12C inhibitors and MEK inhibitors.

With the broad potential role of autophagy as a resistance pathway, there is a significant opportunity to benefit patients across a broad spectrum of solid tumors. Given the frequency of RAS RAF and RTK mutations, and approximately 70% of human cancers, we believe the opportunity for DCC-3116 as a first-in-class ULK inhibitor is significant. We're making good progress in the Phase I study of DCC-3116 and our near-term focus is to reach the recommended monotherapy Phase II dose and then move into the first set of dose escalation combination cohorts with a MEK inhibitor in the second half of this year. We expect to present initial data from the monotherapy dose escalation portion of the study later in 2022. Based on the exciting new preclinical data we have generated, we are also planning to evaluate the combination of DCC-3116 with a KRAS G12C inhibitor in non-small cell lung cancer, subject to regulatory feedback.

Moving to our preclinical pipeline. We recently announced our plans to declare a development candidate from our pan-RAF research program later this year. We are focused on our goal of developing a best-in-class dual inhibitor of BRAF and CRAF kinases, which would address Class 1, 2 and 3 BRAF mutations as well as BRAF fusions. By leveraging our switch-control kinase inhibitor platform, we believe we can develop an inhibitor with superior pharmaceutical properties and a long residency time, adding another clinical development program to our portfolio of potentially best-in-class and first-in-class product candidates.

Before I turn the call over to Dan, I'd like to share a brief update on recent developments with QINLOCK. Last month, we presented more detailed results from the INTRIGUE Phase III clinical study of QINLOCK in second-line GIST at the American Society of Clinical Oncology Plenary Series Session. Although the study did not meet the primary endpoint of superiority compared to sunitinib in second-line GIST patients, the results show that the efficacy with QINLOCK was comparable to sunitinib. QINLOCK was generally well tolerated and fewer patients in the QINLOCK arm experienced Grade 3/4 treatment-emergent adverse events compared to sunitinib. Patient-reported outcome measures also showed a more favorable tolerability profile for patients treated with QINLOCK compared to patients who received sunitinib. We intend to publish the full results of the INTRIGUE study in a peer-reviewed journal in the coming months.

Finally, a few weeks ago, the National Comprehensive Cancer Network, or NCCN, published updated GIST Clinical Practice Guidelines and added a recommendation for the use of QINLOCK 150 milligrams twice daily dosing, or BID, upon disease progression on QINLOCK 150 milligrams once-daily dosing, or QD. An exploratory analysis of the INVICTUS Phase III study of QINLOCK in fourth-line and fourth-line plus GIST published in The Oncologist in November of last year showed that patients who received QINLOCK dose escalation to 150 milligrams BID from 150 milligrams QD after disease progression experienced substantial additional clinical benefit as measured by further progression-free survival.

I'll now turn the call over to Dan Martin, our Chief Commercial Officer, to provide an update on our commercial efforts. Dan?

Daniel C. Martin
Senior VP & Chief Commercial Officer

Thank you, Steve. In Q4, we continued to execute on our commercial goals for QINLOCK, including reinforcing its position as the clear standard of care in fourth-line GIST, continuing to expand our prescriber footprint and providing this important treatment to patients with advanced GIST in the U.S. and globally.

In Q4, we achieved $23.7 million in total net product revenue globally, including $21.5 million in the U.S. The core drivers of QINLOCK demand remained consistent in the U.S. including new patient acquisition, payer access and persistency. During the quarter, our launch-to-date prescriber base grew to nearly 600 physicians, increasing 13% versus Q3 with most new prescribers again coming from the community setting.

Product attribute ratings among QINLOCK users remained exceedingly high in Q4 among both academic and community treaters. During the quarter, as anticipated, the percentage of patients receiving free drug under our patient assistance program, or PAP, was at the high end of our 20% to 30% estimated range and the gross to net adjustment was in line with our projected annual average of 15%. Our PAP in gross to net guidance for 2022 remains the same as in prior years. Lastly, as is common across the industry in the U.S., we saw a modest increase in channel inventory during Q4 that may have a limited impact on ex-factory sales and product revenue in Q1.

Turning to Europe. Now that we have regulatory approval in fourth-line GIST, our team is focused on achieving reimbursement in markets where we can launch most quickly. In Germany, we are now actively promoting QINLOCK, with patients receiving their first shipments last month. In Switzerland, we are pursuing named patient sales. And in France, we are transitioning to a post-approval paid access program in the first half of 2022 before we receive formal pricing and reimbursement decisions. As we have communicated previously, we believe the number of patients diagnosed with GIST each year across the 5 largest European markets is equivalent to the number of patients in the United States. We look forward to building on our U.S. launch success as we now introduce QINLOCK in Europe.

Turning to vimseltinib. As Steve noted, we believe there is significant unmet need and the opportunity to offer meaningful clinical benefit to patients with TGCT. And based on our market research, engagement with KOLs and analysis of U.S. claims data, we believe there is a significant market opportunity for a new therapy with a compelling efficacy and safety profile. We estimate that each year in the U.S., 14,000 to 18,000 patients are diagnosed with TGCT, 2,000 to 2,400 will recur after their first surgery and 1,300 to 1,400 will initiate systemic therapy.

Based on these figures and other insights gleaned from the claims data, we estimate a total potential addressable market in the U.S. of approximately $850 million. And this estimate does not include the additional opportunity associated with a significant prevalent population living with TGCT nor does it include the opportunity in Europe where there are no approved therapies, and the incidents and prevalence are expected to be proportional to the U.S.

Today, the only FDA-approved therapy for TGCT is pexidartinib, which has a boxed warning, a REMS program and extensive liver monitoring requirements because of known hepatotoxicity risk. Given this challenging risk-benefit profile, it's perhaps not surprising that claims that show that few patients who are treated with systemic therapy received pexidartinib. Instead, the majority of these patients receive off-label imatinib despite imatinib not

being FDA approved for TGCT and having limited clinical data supporting its efficacy in these patients. Therefore, we believe the potential best-in-class profile of vimseltinib could offer patients and physicians a highly compelling treatment option for this challenging disease.

And because our analysis shows that approximately 90% of TGCT prescribers are GIST treaters who are already targeted by our commercial team, we believe that we are uniquely positioned to successfully penetrate this market opportunity. We anticipate that if vimseltinib is approved, we will be able to commercialize both QINLOCK and vimseltinib with a single sarcoma-focused field team requiring only incremental commercial investment.

I will now turn the call over to Tucker Kelly, our Chief Financial Officer, to review the financial results. Tucker?

Thomas Patrick Kelly
Executive VP, CFO & Treasurer

Thanks, Dan. I'd like to review the highlights from our fourth quarter financial results. Total revenue for the fourth quarter was $24.2 million, which includes $23.7 million in net product revenue of QINLOCK and $500,000 collaboration revenue, which includes QINLOCK supply and royalty revenue under our agreements with Zai Lab for Greater China. Total revenue for the year ended December 31, 2021, was $96.1 million, which includes net sales of QINLOCK of $87.4 million and $8.8 million in collaboration revenue.

Net product revenues for the fourth quarter of 2021 includes U.S. sales of QINLOCK of $21.5 million and ex U.S. sales of QINLOCK of $2.2 million. Cost of sales for the 3 months ended December 31, 2021, was $500,000 and $2.9 million for the year, which included $1.3 million in cost of net product revenue and $1.6 million in cost of collaboration revenue. Cost of sales will not include the full cost of manufacturing until the initial prelaunch inventory is depleted and additional inventories manufactured and sold. We do not expect the cost of sales as a percentage of net sales of QINLOCK to increase significantly after we have sold all zero cost inventories and commenced the sales of inventories that will reflect the full cost of manufacturing. We expect to continue to sell the initial prelaunch inventory of QINLOCK in the U.S. during 2022.

Total operating expenses were $112.6 million in the fourth quarter compared to operating expenses of $82.5 million in the same period in 2020. For the full year 2021, total operating expenses were $396.2 million compared to $313.3 million in 2020. Research and development expenses in the fourth quarter were $74.9 million compared to $52.3 million for the same period in 2020 and $257 million in 2021 compared to $199 million in 2020. Selling, general and administrative expenses for the fourth quarter were $37.2 million compared to $30.1 million in 2020 and $136.3 million in 2021 compared to $114.1 million in 2020.

Operating expenses in the fourth quarter of 2020 included a onetime charge of $26.2 million due to a restructuring that we announced in November following the INTRIGUE results to prioritize our clinical development activity and streamline our operations. We expect our operating expense to decrease in 2022 as a result of this restructuring. We ended the year in a strong financial position and remain well capitalized with cash, cash equivalents and marketable securities of approximately $327.6 million, which, together with our anticipated product royalty and supply revenues, we expect will be sufficient to fund our operations entering 2024.

With that, I'll now turn the call back over to Steve.

Steven L. Hoerter
President, CEO & Director

Thank you, Tucker. As we've outlined today, we expect significant milestones this year across our deep pipeline of first-in-class and best-in-class product candidates. These milestones include the nomination of a pan-RAF inhibitor development candidate, initial data from our Phase I study of DCC-3116 and the initiation of the study's combination cohorts. Continued enrollment in our Phase III MOTION study of vimseltinib and updated data from its ongoing Phase I/II study, and execution of QINLOCK launches in key European markets, further entrenching this medicine as the global standard of care for fourth-line GIST. We have the resources and the team in place to execute on our strategic priorities and we look forward to sharing updates on our progress over the course of the year as we work to make a difference in the lives of people with cancer.

Operator, I'd now like to open the call for Q&A.

Operator

[Operator Instructions] And our first question comes from Jessica Fye from JPMorgan.

Jessica Macomber Fye
JPMorgan Chase & Co, Research Division

Starting with QINLOCK recognizing that you would never promote for use in earlier lines of therapy that wasn't on the label. Do you see any potential revenue opportunity from physicians wanting to use the product in earlier lines of therapy? Or is payer access going to make that unlikely even if physicians did want to use it that way in some cases?

Steven L. Hoerter
President, CEO & Director

Jess, it's Steve. Thanks for the question, and I'll go ahead and take that. So as I mentioned in the prepared remarks, we saw the data, the INTRIGUE data get presented at the ASCO Plenary Series Session last month. And I think the outside world has interpreted the data very similarly to how we viewed it in that the drug has, it seems, comparable efficacy to Sutent in the second-line, but yet with an improved or better safety profile just based on the number of grade 3/4 treatment-emergent adverse events.

And so what we would expect in terms of next steps is to publish the data in the peer-reviewed literature, and so that's something that we're actively working on. And then as companies do with new data that emerges for an approved drug is we'll then submit those data to the NCCN for their review and consideration for the guidelines.

And so I think any potential use off-label, and you're right, we can't and won't promote off-label for the drug in the second-line. But I think to the extent that the drug is listed in the guidelines, that certainly would enable, potentially, reimbursement for that use outside of the label and then physicians would have to, on their own accord, become aware of the data and then make the treatment decision to use the drug outside of label for that to have an impact on revenue. So I think the short answer is it's just too soon for us to know how that — how the data, the INTRIGUE data — may impact treatment patterns here in the U.S. and what the impact could be on revenue.

Jessica Macomber Fye
JPMorgan Chase & Co, Research Division

Great. And maybe kind of related to the guidelines again. How does the update to the NCCN guidelines for BID dosing affect how you think about duration of treatment or the incremental revenue opportunity for QINLOCK from that type of use?

Steven L. Hoerter
President, CEO & Director

Jess, so just as a reminder, the BID listing now in the NCCN treatment guidelines was based on data both from the Phase III INVICTUS study, which was the basis for our approval, as you know, and also from the Phase I study, where patients had the opportunity to dose escalate to 150 BID upon progression with 150 QD. So very similar to my remarks related to INTRIGUE. Now that that use is included in the treatment guidelines, it certainly makes it perhaps easier for that use to be reimbursed outside of label. Physicians, of course, would need to be aware of it. We can't promote off-label. So physicians would need to be made aware of it and make that treatment decision.

So again, it could have an impact on utilization in the U.S. but it's really too soon for us to know what that impact, if any, could look like. As we've noted on prior calls, we do continue to see a small number of patients being treated with BID, so dose escalation upon progression. And as of our last update on the last quarterly call, what we said was that we see some of that use getting reimbursed and some of that is not getting reimbursed. So we'll have to see what emerges here over the course of '22, both in terms of utilization of that regimen and also the reimbursement of that by payers.

Operator

And our next question comes from Eun Yang from Jefferies.

Eun Kyung Yang
Jefferies LLC, Research Division

This is Eun Yang. So question is on the QINLOCK. So it's coming up to about 2 years in the U.S. since approval. So I'm kind of wondering whether you would provide the sales guidance going forward.

Steven L. Hoerter
President, CEO & Director

Yes. Thanks, Eun, for the question. So with respect to guidance, you're right, we have not provided sales guidance up until now, revenue guidance up until now. And that's principally been because of the dynamics that we see in the marketplace and for the brand, not just in the U.S. but globally. So with our launches now underway in Europe, as I mentioned in the prepared remarks, we thought it prudent not to provide revenue guidance for the year.

I think as soon as we see stabilization and have a better sense of how some of the dynamics that I just discussed to answer Jess' questions, how that plays out, we then may be in a position to provide guidance. But we haven't, as you know, so far.

Eun Kyung Yang
Jefferies LLC, Research Division

Okay. And then QINLOCK, as you launch in Europe, I'm sure the country is different, but — what do you think the average pricing would be? How is it going to be discounted to the U.S. pricing?

Steven L. Hoerter
President, CEO & Director

Yes. Thanks for the question. So we're excited now that the brand is approved in Europe. And as I mentioned in the prepared remarks and last month at an investor conference, our launch is underway now in Germany. And so the drug is priced in Germany at EUR 21,500 per month, so about $24,000 per month. For the rest of the countries across Europe, the ultimate price is going to be dependent upon pricing and reimbursement negotiations. So it's really premature for me to speculate as to what prices will be in other territories or what a future average price may be across key European markets. We most certainly know it's going to be at a lower price than what we experienced in the United States. But we're pleased with the pricing approach that we've taken in Germany so far and pleased as well with how the launch is going, even though it is early days so far in Q1.

Operator

And our next question comes from Chris Raymond from Piper Sandler.

Allison Marie Bratzel
Piper Sandler & Co., Research Division

This is Ally Bratzel on for Chris today. So first, just a quick clarification on QINLOCK trends. I think in the prepared remarks, you had mentioned an inventory build for QINLOCK in Q4. So could you just quantify that? Or kind of help us understand how we should be thinking about sequential trends heading into Q1?

And then separately on the vimseltinib Phase I/II update in the second half. Just hoping you could kind of bring that readout and how it informs the long-term safety profile of the drug, persistency rates and those kind of things. And just what kind of — what should we be paying the most attention to when we get that update?

Steven L. Hoerter
President, CEO & Director

Yes. Thanks for the question, Ally. So I'll take the second question first, and then I'll ask Dan if he would take the question about market dynamics and the inventory build that we saw in Q4. So for vimseltinib, the program, as you know, is moving along briskly. So we're excited to have the MOTION study now up and enrolling patients. And as you referenced, we'll have an update to the Phase I/II study later this year.

The last update, which was at ESMO, we reported a blended response from the dose escalation part of the Phase I and then the expansion cohort, Cohort A, of 47%. So we're really pleased with the level of activity that we were seeing despite the data being relatively immature at that data update. In addition, the safety data that we presented showed that the adverse event profile was very manageable with the vast majority of the AEs being grade 1 and grade 2.

So in terms of what to look for here with the data update later this year, we'll have certainly a better data maturity both from the Phase I dose escalation cohort part of the study and also from the expansion cohort, which is fully enrolled. So we'll have a more robust set of data. And what we'll be looking to is both the efficacy of the drug and how that profile continues to evolve and also the longer-term safety that we see with the drug. So far, we've been really pleased with the results that we've presented and we look forward to providing the data update later this year.

Daniel C. Martin
Senior VP & Chief Commercial Officer

Ally, this is Dan. I'll take the first question you asked about the inventory and sort of overall market trend. So overall, we continue to be really pleased. And as I mentioned in my prepared remarks, we continue to see real strength in ...

[Technical Difficulty]

As I noted, continue to tell us it's a clear standard of care in the fourth-line and that their perceptions of QINLOCK as they treat their patients remain exceedingly high. So overall, really pleased with the positive and consistent business trends.

[Technical Difficulty]

Operator

Okay. Speaker, I apologize about that. We had some feedback coming from that line, but you can go ahead. You probably want to start back a little bit because there was noise and we weren't able to hear you.

Daniel C. Martin
Senior VP & Chief Commercial Officer

Okay, sure. So you can hear me okay, Justin?

Operator

I can hear you just fine.

Daniel C. Martin
Senior VP & Chief Commercial Officer

Excellent. I didn't think it was my line, but I want to make sure. So as I was saying, really, really pleased with the positive and consistent overall trends of the business. As it relates to the inventory color we provided, we just wanted to point out that we saw — I'll underscore again, modest inventory build in Q4, just wanted to provide a little bit of color there, but very consistent with what is often seen throughout the industry in the U.S. with that Q4 to Q1 trend.

So nothing beyond that little color we wanted to provide.

Operator

And our next question comes from Michael Schmidt from Guggenheim.

Paul Jeng
Guggenheim Securities, LLC, Research Division

This is Paul on for Michael. Just a couple from us on DCC-3116. Hoping to get your comments on what you're trying to — hoping to see for initial data this year that would be considered positive or sort of encouraging for the development? And then on those lines, a little color on how you're thinking about the combination with KRAS G12C. Is this sort of more overcoming potential resistance mechanisms, improving efficacy and responders or maybe other observations that you could highlight from your preclinical studies?

Steven L. Hoerter
President, CEO & Director

Yes. Thanks for the questions, Paul. So I'd be happy to take those. So first, with respect to the data update for 3116 later this year, as I mentioned in my prepared remarks, we'll have data from the monotherapy dose escalation part of the study. So principally, what we're going to be looking for from that part of the study is safety data and getting to a recommended Phase II dose. We're also, of course, going to be looking at important pharmacodynamic markers from the Phase I. So really trying to ensure from those PD markers that we're inhibiting ULK, and we're having sort of pharmacodynamic effect that we hope and need to have with 3116 in humans. So that's exactly what we'll be looking for with the data update later this year.

Now with respect to KRAS G12C inhibitor combinations, we've presented now data showing that KRAS G12C inhibitors similar to receptor tyrosine kinase inhibitors, similar to MEK inhibitors, all elicit an increase in autophagy when treating cancers. And so we've demonstrated that quite convincingly, I think, in the preclinical models that we've presented and reported on, some of that quite recently. In fact, at the Triple Meeting last year, we had a full set of data looking at both osimertinib and afatinib as receptor tyrosine kinase inhibitors and the potential combination of 3116 with those two agents.

But with KRAS G12C, what we see is the same dynamic, which is that those inhibitors elicit an increase in autophagy and we're able to address that with the addition of an ULK inhibitor. And so we reported some in vivo data showing the same where we see actually frank tumor regressions in some models and some in vivo models with the KRAS G12C inhibitor.

So I think as to the question of whether this is — whether we expect to see the addition of an ULK inhibitor impact patients who might respond to KRAS G12C inhibition versus those who may not. I think it's still too soon for us to know based on the preclinical data what that may look like in the clinic, but we're really pleased with the signal that we've seen so far. And as we said last month, our intent is to move forward with planning for KRAS G12C clinical combination.

Operator

And our next question comes from Robyn Karnauskas from Truist Security.

Alexander Xenakis
Truist Securities, Inc., Research Division

This is Alex on for Robyn. Will the BID treatment recommendation as you got on the NCCN guidelines translate to other countries, either in the EU or in China? And is there an initiative there to make that happen?

Steven L. Hoerter
President, CEO & Director

Yes. Thanks for the question. So I'll be happy to take that. So with respect to the NCCN guidelines, we know that physicians around the world reference those guidelines despite the fact that they may have regional guidelines, for example, ESMO publishes treatment — cancer treatment guidelines as well. But we know physicians will reference the NCCN guidelines around the world and view that as an authority and a source of information.

So how that impacts utilization in other territories, I think it's still too early for us to know whether the listing and the NCCN treatment guidelines will have an impact there.

Alexander Xenakis
Truist Securities, Inc., Research Division

And for treatment duration, do you have any insights into what the real-world data treatment duration is for QINLOCK in fourth line GIST? And does it approach that 10.5 months seen in the INVICTUS clinical trial?

Steven L. Hoerter
President, CEO & Director

Sure. Dan, would you like to take the question about what we're seeing in terms of duration and persistency?

Daniel C. Martin
Senior VP & Chief Commercial Officer

Sure, absolutely. Thanks for the question. So yes, this is something that we, of course, track closely. And what we've seen, we've been really pleased with, not always does real-world persistency track in keeping with clinical trials. But what we've communicated previously is that the persistency we see and duration of therapy that we see has been very consistent with the PFS that we saw in the INVICTUS trial. So that's how we've tried to provide color on what we've seen in the real-world setting.

Operator

And our next question comes from Peter Lawson from Barclays.

Peter Richard Lawson
Barclays Bank PLC, Research Division

Just — just a couple of quick ones on the ULK inhibitor. Just how is that proceeding for the dose escalation has enrollment going? And how many patients do you think you'll have by I guess, the second half when we see the data?

Steven L. Hoerter
President, CEO & Director

Yes, Peter, it's Steve. Thanks for the question. So we're pleased with how the Phase I dose escalation study is progressing. We haven't provided specific details on patient numbers, and it's too early for us to guide specifically on how many patients we may be able to report on here in the second half. But it's progressing according to plan, and we're pleased with the enrollment that we're seeing in that dose escalation study.

Peter Richard Lawson
Barclays Bank PLC, Research Division

Got you. And then a couple of quick ones for Tucker actually. Just the cash guidance into '24. I think there's some long-term marketable securities. Does that — is anything in there that could become illiquid? And then I noticed you filed a $300 million shelf. Just how should we be thinking about that if that's kind of good housekeeping or anything else we should be thinking about?

Thomas Patrick Kelly
Executive VP, CFO & Treasurer

Exactly, Peter. I'll take the second part first. That's exactly right in terms of the shelf. That's just good housekeeping because of the stock — market cap drop, we lost WKSI status, so we needed to put up another shelf, which we had before we gained with the status a couple of years ago. So nothing to read in behind that, just good corporate housekeeping.

And as you say, the cash balance that we report, that $327.6 million, includes both cash and marketable securities as well. So — but we're a good biotech company, manage the cash prudently, and we also — we do have marketable securities or other investments, we have them with a very short expiry on and we don't extend ourselves out there with anything that would have long maturities or a kind of risk of loss in that way. So we try and be pretty prudent and keep it all as close to cash as we can.

Operator

And our next question comes from Reni Benjamin from JMP Securities.

Reni John Benjamin
JMP Securities LLC, Research Division

Maybe just starting off with 3116. We've seen some of the preclinical data in combination with osimertinib, but you're starting off with trametinib and then going on to sotorasib. And so I'm kind of curious, how are you prioritizing the development going forward? Should we be expecting a combination study with osimertinib or will you wait to see how the first two combinations work out before exploring new combinations?

Steven L. Hoerter
President, CEO & Director

Reni, it's Steve. Thanks for the question. It's a good one. And you're right. We've presented a lot of preclinical data now looking at a variety of different combinations, and that's simply reflective of us following the science and following the data. So I think the way I would guide you, the way that we think about it at least, is that we'll continue to follow the data that we generate to follow the science in terms of what combinations look most interesting to us and would be tractable in the clinic.

And so we would expect over time that we'll continue to want to explore additional combinations with the drug just because we think it has potentially a very broad utility with combining the ULK inhibitor with receptor tyrosine kinase inhibitors, MAP kinase pathway inhibitors and others. So more to come. We haven't, as you know, we haven't made any additional disclosures aside from looking at a KRAS G12C inhibitor combination, but we'll continue to generate additional preclinical data and we'll be publishing that over the course of this year.

Reni John Benjamin
JMP Securities LLC, Research Division

Okay. And then just sticking with the ULK inhibitor for a minute. When we think about basal levels of autophagy and then in these cancers, higher levels, are you measuring ULK or some other biomarker? And are you doing that in the plasma? Or is it at the tumor biopsy level? And I guess, just two related questions to that – is this expression, these levels of autophagy, is it kind of heterogeneous? Or is it quite ubiquitous? And I guess what I'm getting at is, can this ultimately be used as a patient selection strategy?

Steven L. Hoerter
President, CEO & Director

Yes, that's a good question, Reni. I don't think we know the exact answer yet to that last question that you posed. But with respect to what we'll be looking at as PD markers and the data that we report later this year, we'll be looking principally at two markers. One is ATG14, which is a marker of ULK inhibition. So that will be an important marker for us in addition to looking at P62, which is a measure of autophagic flux. And so those are the 2 main biomarkers — excuse me, PD markers, we'll be looking at when we report out the data later this year.

Reni John Benjamin
JMP Securities LLC, Research Division

And was that — did you mention is that in the plasma? Or is that from tumor biopsies?

Steven L. Hoerter
President, CEO & Director

No, that's right. It's peripheral blood.

Reni John Benjamin
JMP Securities LLC, Research Division

Got you. And just a final question. You mentioned the nomination of a new pan-RAF inhibitor sometime this year. I vaguely remember VPS34 IND. Can you just give us an update as to what's happening with that asset or if it's been shelved, I didn't see any mention of it in the press release.

Steven L. Hoerter
President, CEO & Director

Yes. Our VPS34 inhibitor program is a very active research program. So as you'll remember, this was a program that we licensed last year and has been folded internally under our autophagy efforts, our autophagy franchise. So our research organization has been very active in progressing that program forward. We haven't made any disclosures yet or guided in terms of when to expect an IND or a development candidate from that program. But we're pleased with how the work is progressing and that forms a key component of our approach to targeting the autophagy pathway generally.

And then for the pan-RAF program, you're right, Reni. So this is a program that we disclosed last month — a research program that we disclosed last month, and we've guided to having a development candidate emerge from that research program later this year. So we're looking forward to getting to that important milestone as we get closer to potentially bringing a program into the clinic.

Operator

And I'm showing no further questions. I would now like to turn the call back over to Steve Hoerter for closing remarks.

Steven L. Hoerter
President, CEO & Director

Great. Thanks, Justin. Thanks to all of you for joining us on today's call, and thank you for your continued support. We look forward to keeping you updated on our progress during the course of the year here in 2022. I hope you have a great evening.

Operator

This concludes today's conference call. Thank you for participating. You may now disconnect.