### UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

# **SCHEDULE 13D**

### Under the Securities Exchange Act of 1934 (Amendment No. 1)

# **Compass Therapeutics, Inc.**

(Name of Issuer)

### **COMMON STOCK**

(Title of Class of Securities)

### 20454B104

(CUSIP Number)

#### **OrbiMed Advisors LLC**

### **OrbiMed Capital GP V LLC**

601 Lexington Avenue, 54th Floor New York, NY 10022 Telephone: (212) 739-6400

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

### July 9, 2021

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(g), check the following box.

**Note:** Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7(b) for other parties to whom copies are to be sent.

\* The remainder of this cover page shall be filled out for a Reporting Person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

### CUSIP No. 20454B104

1	Names of Reporting Persons. OrbiMed Advisors LLC			
2	Check the Appro (a) o (b) o	the Appropriate Box if a Member of a Group (See Instructions).		
3	SEC Use Only			
4	Source of Funds (See Instructions) AF			
5	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) o			
6	Citizenship or Place of Organization Delaware			
N	NUMBER OF SHARES ENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	Sole Voting Power 0	
		8	Shared Voting Power 12,714,404	
R		9	Sole Dispositive Power 0	
		10	Shared Dispositive Power 12,714,404	
11	Aggregate Amount Beneficially Owned by Each Reporting Person 12,714,404			
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) o		0	
13	Percent of Class 20.4%*	Percent of Class Represented by Amount in Row (11) 20.4%*		
14	Type of Reporting Person (See Instructions) IA			

\* This percentage is calculated based upon 62,323,147 outstanding shares of common stock, par value \$0.0001 per share, of Compass Therapeutics, Inc. (the "<u>Issuer</u>"), as set forth in the Issuer's Registration Statement on Form S-3, filed with the Securities and Exchange Commission on July 9, 2021.

# CUSIP No. 20454B104

1	Names of Reporting Persons. OrbiMed Capital GP V LLC				
2	Check the Appropriate Box if a Member of a Group (See Instructions). (a) o (b) o				
3	SEC Use Only				
4	Source of Funds ( AF	ource of Funds (See Instructions) F			
5	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) 0				
6	Citizenship or Place of Organization Delaware				
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13	Percent of Class Represented by Amount in Row (11) 20.4%*				
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\* This percentage is calculated based upon 62,323,147 outstanding shares of common stock, par value \$0.0001 per share, of Compass Therapeutics, Inc. (the "Issuer"), as set forth in the Issuer's Registration Statement on Form S-3, filed with the Securities and Exchange Commission on July 9, 2021.

### Item 1. Security and Issuer

This Amendment No. 1 ("<u>Amendment No. 1</u>") to Schedule 13D (the "<u>Statement</u>") supplements and amends the Statement on Schedule 13D of OrbiMed Advisors LLC and OrbiMed Capital GP V LLC (the "Statement") originally filed with the Securities and Exchange Commission (the "SEC") on June 29, 2020. This Schedule 13D (the "<u>Statement</u>") relates to the common stock, par value \$0.0001 per share (the "<u>Shares</u>"), of Compass Therapeutics, Inc., a corporation organized under the laws of Delaware (the "<u>Issuer</u>"), with its principal executive offices located at 245 First Street, 3rd Floor, Cambridge, Massachusetts 02142. Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

On July 9, 2021, the Issuer filed a Registration Statement on Form S-3 that stated the Issuer's total number of outstanding shares has increased 62,323,147 (the "<u>Outstanding Share Increase</u>"). As a result of the Outstanding Share Increase, the percentage of outstanding Shares that the Reporting Persons may be deemed to beneficially own was reduced by more than one percent since the filing of the Statement.

### Item 2. Identity and Background

(a) This Schedule 13D is being filed by OrbiMed Advisors LLC ("<u>OrbiMed Advisors</u>") and OrbiMed Capital GP V LLC ("<u>OrbiMed GP</u>") (collectively, the "<u>Reporting Persons</u>").

(b) - (c), (f) OrbiMed Advisors, a limited liability company organized under the laws of Delaware and a registered investment adviser under the Investment Advisers Act of 1940, as amended, is the managing member of OrbiMed GP, as more particularly described in Item 6 below. OrbiMed Advisors has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

OrbiMed GP, a limited liability company organized under the laws of Delaware, is the general partner of OrbiMed Private Investments V-KA, LP ("<u>OPI V-KA</u>"), a limited partnership organized under the laws of Delaware, as more particularly described in Item 6 below. OrbiMed GP has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

The directors and executive officers of OrbiMed Advisors and OrbiMed GP are set forth on Schedules I and II, respectively, attached hereto. Schedules I and II set forth the following information with respect to each such person:

- (i) name;
- (ii) business address;

(iii) present principal occupation of employment and the name, principal business and address of any corporation or other organization in which such employment is conducted; and

(iv) citizenship.

(d) — (e) During the last five years, neither the Reporting Persons nor any Person named in Schedules I and II has been (i) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

### Item 3. Source and Amount of Funds or Other Consideration

Not applicable.

### Item 4. Purpose of Transaction

The Shares were acquired for the purpose of making an investment in the Issuer and not with the intention of acquiring control of the Issuer's business on behalf of the Reporting Persons' respective advisory clients.

The Reporting Persons from time to time intend to review their investment in the Issuer on the basis of various factors, including the Issuer's business, financial condition, results of operations and prospects, general economic and industry conditions, the securities markets in general and those for the Issuer's Shares in particular, as well as other developments and other investment opportunities. Based upon such review, the Reporting Persons will take such actions in the future as the Reporting Persons may deem appropriate in light of the circumstances existing from time to time. If the Reporting Persons believe that further investment in the Issuer is attractive, whether because of the market price of Shares or otherwise, they may acquire Shares or other securities of the Issuer either in the open market or in privately negotiated transactions. Similarly, depending on market and other factors, the Reporting Persons may determine to dispose of some or all of the Shares currently owned by the Reporting Persons or otherwise acquired by the Reporting Persons either in the open market or in privately negotiated transactions.

Except as set forth in this Schedule 13D, the Reporting Persons have not formulated any plans or proposals which relate to or would result in: (a) the acquisition by any person of additional securities of the Issuer or the disposition of securities of the Issuer, (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries, (c) a sale or transfer of a material amount of the assets of the Issuer or any of its subsidiaries, (d) any change in the present Board of Directors or management of the Issuer's capitalization or dividend policy of the Issuer, (f) any other material change in the Issuer's business or corporate structure, (g) any change in the Issuer's charter or bylaws or other instrument corresponding thereto or other action which may impede the acquisition of control of the Issuer by any person, (h) causing a class of the Issuer's securities to be deregistered or delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association, (i) a class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act or (j) any action similar to any of those enumerated above.

#### Item 5. Interest in Securities of the Issuer

(a) — (b) The following disclosure is based upon 62,323,147 outstanding Shares, as set forth in the Issuer's Registration Statement on Form S-3 filed with the Securities and Exchange Commission (the "SEC") on July 9, 2021.

As of the date of this filing, OPI V-KA holds 12,714,404 Shares constituting approximately 20.4% of the issued and outstanding Shares. OrbiMed GP is the general partner of OPI V-KA, pursuant to the terms of the limited partnership agreement of OPI V-KA, and OrbiMed Advisors is the managing member of OrbiMed GP, pursuant to the terms of the limited liability company agreement of OrbiMed GP. As a result, OrbiMed Advisors and OrbiMed GP share power to direct the vote and disposition of the Shares held by OPI V-KA and may be deemed directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Shares held by OPI V-KA. OrbiMed Advisors exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild, each of whom disclaims beneficial ownership of the Shares held by OPI V-KA.

In addition, OrbiMed Advisors and OrbiMed GP, pursuant to their authority under the limited partnership agreements of OPI V-KA, caused OPI V-KA to enter into the agreements referred to in Item 6 below.

(c) The Reporting Persons have not effected any transactions during the past sixty (60) days in any Shares.

(d) Not applicable.

(e) Not applicable.

### Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, OrbiMed GP is the general partner of OPI V-KA, pursuant to the terms of the limited partnership agreement of OPI V-KA. Pursuant to this agreement and relationship, OrbiMed GP has discretionary investment management authority with respect to the assets of OPI V-KA. Such authority includes the power to vote and otherwise dispose of securities held by OPI V-KA. The number of outstanding Shares of the Issuer attributable to OPI V-KA is 12,714,404. OrbiMed GP, pursuant to its authority under the limited partnership agreement of OPI V-KA, may be considered to hold indirectly 12,714,404 Shares.

OrbiMed Advisors is the managing member of OrbiMed GP, pursuant to the terms of the limited liability company agreement of OrbiMed GP. Pursuant to these agreements and relationships, OrbiMed Advisors and OrbiMed GP have discretionary investment management authority with respect to the assets of OPI V-KA. Such authority includes the power of OrbiMed GP to vote and otherwise dispose of securities held by OPI V-KA. The number of outstanding Shares attributable to OPI V-KA is 12,714,404 Shares. OrbiMed Advisors, pursuant to its authority under the terms of the limited liability company agreement of OrbiMed GP, may also be considered to hold indirectly 12,714,404 Shares.

Carl L. Gordon ("<u>Gordon</u>"), a member of OrbiMed Advisors, is a member of the Board of Directors of the Issuer and, accordingly, OrbiMed Advisors and OrbiMed GP may have the ability to affect and influence control of the Issuer. From time to time, Gordon may receive stock options or other awards of equity-based compensation pursuant to the Issuer's compensation arrangements for non-employee directors. Pursuant to an agreement with OrbiMed Advisors and OrbiMed GP, Gordon is obligated to transfer any securities issued under any such stock options or other awards, or the economic benefit thereof, to OrbiMed Advisors and OrbiMed GP, which will in turn ensure that such securities or economic benefits are provided to OPI V-KA.

#### **Registration Rights Agreement**

OPI V-KA is party to a registration rights agreement with the Issuer (the "<u>Registration Rights Agreement</u>") for purposes of registering the resale of the Shares. A registration statement with subsequently declared effective by the SEC on September 25, 2020. The Issuer agreed to use its commercially reasonable efforts to maintain the effectiveness of the registration statement for a period of five years or until the Shares registered thereunder have been sold in accordance with the registration statement or Rule 144 promulgated under the Securities Act of 1933.

The foregoing description of the Registration Rights Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Registration Rights Agreement, a copy of which is included in this Amendment No. 1 as Exhibit 2 and incorporated herein by reference.

### Item 7. Material to Be Filed as Exhibits

Exhibit	it Description	
1. Joint Filing Agreement among OrbiMed Advisors LLC and OrbiMed Capital GP V LLC.		
2.	Registration Rights Agreement by and among the Issuer and the investors signatory thereto dated June 19, 2020 (incorporated reference to Exhibit 10.7 to the Issuer's From 8-K (SEC 000-55939) filed with the SEC on June 23, 2020).	

### Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: July 14, 2021

ORBIMED ADVISORS LLC

By: /s/ Carl L. Gordon Name: Carl L. Gordon Title: Member

ORBIMED CAPITAL GP V LLC

- By: ORBIMED ADVISORS LLC, its managing member
- By: /s/ Carl L. Gordon Name: Carl L. Gordon Title: Member of OrbiMed Advisors LLC

### SCHEDULE I

The names and present principal occupations of each of the executive officers and directors of OrbiMed Advisors LLC are set forth below. Unless otherwise noted, each of these persons is a United States citizen and has a business address of 601 Lexington Avenue, 54th Floor, New York, NY 10022.

Name	Position with Reporting Person	Principal Occupation
Carl L. Gordon	Member	Member OrbiMed Advisors LLC
Sven H. Borho German and Swedish Citizen	Member	Member OrbiMed Advisors LLC
Jonathan T. Silverstein	Member	Member OrbiMed Advisors LLC
W. Carter Neild	Member	Member OrbiMed Advisors LLC
Geoffrey C. Hsu	Member	Member OrbiMed Advisors LLC
C. Scotland Stevens	Member	Member OrbiMed Advisors LLC
David P. Bonita	Member	Member OrbiMed Advisors LLC
Trey Block	Chief Financial Officer	Chief Financial Officer OrbiMed Advisors LLC

## SCHEDULE II

The business and operations of OrbiMed Capital GP V LLC are managed by the executive officers and directors of its managing member, OrbiMed Advisors LLC, set forth in Schedule I attached hereto.

Exhibit	Description	
1.	Joint Filing Agreement among OrbiMed Advisors LLC and OrbiMed Capital GP V LLC.	
2.	Registration Rights Agreement by and among the Issuer and the investors signatory thereto dated June 19, 2020 (incorporated by reference to Exhibit 10.7 to the Issuer's From 8-K (SEC 000-55939) filed with the SEC on June 23, 2020).	

### Exhibit 1

### JOINT FILING AGREEMENT

The undersigned hereby agree that the Statement on Schedule 13D, dated July 14, 2021, with respect to the common shares of Compass Therapeutics, Inc. is filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended. Each of the undersigned agrees to be responsible for the timely filing of this Statement, and for the completeness and accuracy of the information concerning itself contained therein. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the 14<sup>th</sup> day of July 2021.

### ORBIMED ADVISORS LLC

By: /s/ Carl L. Gordon

Name: Carl L. Gordon Title: Member

ORBIMED CAPITAL GP V LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Carl L. Gordon Name: Carl L. Gordon Title: Member of OrbiMed Advisors LLC