

November 8, 2021

#### VIA ELECTRONIC SUBMISSION

Division of Dockets Management Food and Drug Administration Department of Health and Human Services 5630 Fishers Lane, Room 1061 Rockville, MD 2085

Re: Par Sterile Products, LLC's Citizen Petition

on Pending or Future Vasopressin ANDA Products Referencing Vasostrict®

#### Dear Sir or Madam:

On behalf of Par Sterile Products, LLC ("Par"), we respectfully submit this citizen petition pursuant to Section 505 of the Federal Food, Drug and Cosmetic Act (the "FDCA") and 21 C.F.R. §§ 10.20, 10.25, 10.30, and 10.31, to request that the Commissioner of the United States Food and Drug Administration ("FDA") take the actions described below with respect to abbreviated new drug applications ("ANDAs") referencing Vasostrict®, including Eagle Pharmaceuticals, Inc.'s ("Eagle") ANDA No. 211538 ("Eagle's ANDA").

Eagle submitted its ANDA for a generic vasopressin product in 2018, and its June 2021 response to a Complete Response Letter has a GDUFA goal date of December 15, 2021.¹ During a recent patent trial over Eagle's ANDA, it came to light that, if Eagle manufacturers its product at the upper end of the pH release specification in its ANDA, then the pH of Eagle's product will likely increase above the upper limit set in its stability specification. The release specification and the stability specification for Eagle's ANDA product have a pH range of 3.4 to 3.6. Because the pH of Eagle's product is likely to increase during its shelf life, Eagle's ANDA product may be released within the release specification parameters, but the pH will drift upward and outside of the specification during the product's shelf life, creating potential issues for the stability and immunogenicity profile of Eagle's product. Similarly, to the extent that other vasopressin ANDAs referencing Vasostrict® similarly contain pH release specifications that are the same as or close to the pH stability specifications, such products may similarly pose potential safety and immunogenicity issues if they experience a similar upward drift in pH during their shelf life. FDA should therefore refrain from approving these ANDAs in their current form.

On July 7-9, 2021, a public three-day trial was held in the patent case *Par Pharmaceutical, Inc. et al. v. Eagle Pharmaceuticals Inc.*, No. 1-18-cv-00823-CFC-JLH (Consolidated) (D. Del.). During the trial, Eagle described the pH of its vasopressin product and

<sup>&</sup>lt;sup>1</sup> Eagle Pharmaceuticals Announces FDA Maintains Prioritization of ANDA for Vasopressin, Business Wire (June 24, 2021), https://www.businesswire.com/news/home/20210624005316/en/Eagle-Pharmaceuticals-Announces-FDA-Maintains-Prioritization-of-ANDA-for-Vasopressin.

admitted that its ANDA product can exceed the stability specification for pH during its shelf life even if the product's pH were within the release specification after manufacturing. Post-trial briefs and proposed findings of fact were filed on July 19, 2021, and July 28, 2021, which has contextualized and brought into focus certain aspects of what was revealed during the trial. It is our understanding that this is the first public disclosure of this information.

On September 10, 2021, shortly after receiving the post-trial briefs, counsel for Par submitted a private correspondence to FDA respectfully requesting that FDA take the action outlined in this citizen petition with respect to Eagle's ANDA. On October 27, 2021, FDA sent a response letter, directing Par to submit its request as a citizen petition to allow Eagle and "others the opportunity to comment and participate in the decision-making process." FDA Ltr. to C. Landmon ("FDA Ltr."), at 1 (October 27, 2021) (attached as Exhibit A).

The regulations are clear that drug products that do not meet specifications must be rejected: "For each batch of drug product, there shall be appropriate laboratory determination of satisfactory conformance to final specifications for the drug product... prior to release," and products that fail to meet the release specifications "shall be rejected." Among other things, FDA guidance requires release and stability specifications and data supporting those specifications. Before approving Eagle's ANDA, or any other pending or future ANDA referencing Vasostrict with release and/or stability specific the same or similar to Eagle's, FDA should require the ANDA applicant to amend its stability specification and demonstrate that such amended stability specification does not pose any concerns with impurities or other safety issues. Alternatively, the ANDA applicant should be required to change its release specification and demonstrate that a lower upper limit for the pH range in the release specification will ensure that, even with an upward pH drift, the ANDA product will stay within the stability specification parameters during the entirety of its shelf-life.

## **ACTION REQUESTED**

We respectfully request that FDA take the following action:

- (1) Refrain from approving Eagle's ANDA until it has either:
  - a Amended the stability specification and demonstrated that such amended stability specification does not pose any concerns with impurities or other safety issues; or
  - b Amended its release specification and demonstrated that a lower upper limit for the pH range in the release specification will ensure that Eagle's product will stay within the stability specification parameters during the entirety of its shelf-life.
- (2) Refrain from approving any pending or future vasopressin ANDA referencing Vasostrict® if it has pH release specifications that are the same as or close to the pH stability specifications until it has either:

<sup>&</sup>lt;sup>2</sup> 21 C.F.R. §§ 211.165(a), (f).

<sup>&</sup>lt;sup>3</sup> See generally ANDA Submissions – Content and Format, Guidance for Industry (June 2019); ANDAs: Stability Testing of Drug Substances and Products, Guidance for Industry (June 2013).

- a Amended the stability specification and demonstrated that such amended stability specification does not pose any concerns with impurities or other safety issues;
- Amended its release specification and demonstrated that a lower upper limit for the pH range in the release specification will ensure that the ANDA product will stay within the stability specification parameters during the entirety of its shelf-life; or
- c Demonstrated that such product will not experience any significant upward drift of pH such that any product released at the upper end of the pH release specification will not exceed the upper end of the pH stability specification during the entirety of the shelf life.

## **STATEMENT OF GROUNDS**

### II. FACTUAL BACKGROUND

A. Eagle's Products Will Likely Be Outside the Stability Specification Even if They Are Within the pH Release Specification.

Vasopressin is an antidiuretic hormone that is most often used as a life-saving drug in emergency and intensive care medicine to increase and maintain systemic vascular resistance and arterial pressure.<sup>4</sup> Eagle's proposed ANDA product is packaged in one milliliter vials with a concentration of 20 units per milliliter. See Trial Transcript, 129:2-4, Par Pharm., Inc. et al. v. Eagle Pharm. Inc., No. 18-823-CFC-JLH (Consolidated) (D. Del.) ("Tr.") (attached as Exhibit B). The proposed product will arrive refrigerated and will be stored in a refrigerator or at room temperature. Under refrigeration conditions, the proposed shelf life is 24 months. Id. at 134:18. When it is stored at room temperature, however, the proposed shelf life is 12 months from the time it is removed from refrigeration up to 24 months total. Id. at 128:13-21. Based on the different storage conditions, properties such as pH must be tested and controlled to ensure that the product stays within the prescribed specifications during its shelf life. Control of pH is one way to ensure optimal stability of vasopressin, and when the pH is not stable and controlled, the stability of the product is affected. See, e.g., id. at 198:1-199:16.

According to the testimony at the patent trial, Eagle's release pH specification and its stability pH specification for its ANDA product are identical: 3.4 to 3.6. This means that the ANDA product must have a pH of 3.4 to 3.6 before it is released and during the entirety of its shelf life. See *id.* at 349:8-350:16 (Kinam Park, Ph.D., expert for Eagle); DTX-327<sup>5</sup> (ANDA document, stability specifications) at 1; Par's Proposed Findings of Fact Regarding Eagle's Infringement of the '209 and '785 Patents ("Par's FOF"), ¶ 86 (attached as Exhibit C); Defendants' Proposed Findings of Fact Regarding Noninfringement ("Eagle's FOF"), ¶¶ 334-45

<sup>&</sup>lt;sup>4</sup> See generally Aviral Roy & Richard Phillip Dellinger, Attempting to define and refine vasopressin use in septic shock: the VANISH trial, 4 ANN. OF TRANSLATIONAL MED. 501 (2016).

<sup>&</sup>lt;sup>5</sup> Reference herein to documents with "DTX" and "PTX" designations refer to trial exhibits introduced into evidence from the defendant and plaintiff, respectively, in Eagle's patent trial. Although such documents do not appear on the court's PACER system, they were discussed in open court during the course of the trial, are referenced in transcript pages discussed herein, and can be located in Eagle's ANDA. Where possible, we have provided a sufficient description of such documents to enable FDA to locate the documents within Eagle's ANDA.

(attached as Exhibit D); PTX-1427 (ANDA Module 3.2.P.5.1, description of specifications). As will be discussed further below, the evidence during the patent trial demonstrated that the pH of Eagle's ANDA product increases over time. As a result, product that is released nearer to the upper end of Eagle's release specification will exceed the stability specification during the product's shelf life. This is because the release and stability specifications are identical. FDA should therefore not approve Eagle's ANDA under the current specifications and should require Eagle to demonstrate that no impurity or other safety-related issues will result even under revised pH specifications. Eagle's specifications should be changed to ensure all product released will remain within stability specifications throughout its shelf-life.

## Eagle's Batch SVA001 Was Released and Fell Outside the Stability Specification for pH.

Batch SVA001, for example, was released at the top end of the release specification (3.4-3.6) with a pH of 3.64. See Tr. 362:7-9; *id.* at 226:2-12 (Lee Kirsch, Ph.D., Par's expert); Par's FOF, ¶ 100; see *also* PTX-1435 (ANDA Module 3.2.P.8.1), at 9. During 24-month stability testing of this batch, the pH values were measured at 3.7, 3.8, and 3.7 when stored upright and under refrigeration conditions. See Par's FOF, ¶ 98; PTX-208 (ANDA document, stability data for registration batch SVA001); Tr. 220:19-23, 221:15-222:8 (Kirsch). Three values were recorded "because the original measurement of 3.69 was out of specification" ("OOS"). Par's FOF, ¶ 98; see Tr. 357:11-358:2 (Park); DTX-993 (ANDA document, pH measurements under various conditions); see *also* Eagle's FOF, ¶ 358 ("the 24-month upright sample result was 3.69 (rounded to 3.7)" which "fell just outside the upper pH limit of 3.64 at proposed expiry").

Eagle undertook an investigation to determine the root cause of the OOS result and found that the high pH values occurred because batch SVA001 "was released at the upper limit of the pH specification (the release value was 3.64, which rounds to 3.6)." Par's FOF, ¶ 100; see Eagle's FOF, ¶ 360; see also PTX-1435 (ANDA Module 3.2.P.8.1), at 9; Tr. 227:2-16 (Kirsch). In addition, Eagle also concluded that "[t]he product is the likely root cause of the high pH." Par's FOF, ¶ 99; see PTX-53 (Out of Specification Report, PR661354); Tr. 224:4-225:16 (Kirsch). Eagle subsequently made manufacturing changes, which involve continued mixing, in an attempt to better control the pH during manufacturing. Tr. 362:12-19; 364:2-5.

Despite tweaking its manufacturing process, however, Eagle did not change its release specification to decrease the upper-end of its acceptable pH range of 3.4 to 3.6. Instead, Eagle adjusted its in-process pH specification. There, however, "Eagle broadened the upper limit of its in-process pH specification, from 3.50 to 3.54, after manufacturing the optimization/confirmation batches (SVA007-009)." Par's FOF, ¶ 78; see also Eagle's FOF, ¶ 372.

### 2. "Optimized" Batches Demonstrate Post-Release Upward Drift of pH.

Eagle's "optimized" manufacturing process was performed on several batches, but the pH continued to drift upward with in-process testing and post-release stability testing. The "optimization" of the manufacturing process refers to extended stirring of the pH adjusted product for more uniformity, but does not affect the pH drift of the final product. The data revealed at trial and contextualized in the post-trial briefings reveal that the pH of Eagle's product will drift upward over time even when produced using the "optimized" method. See Par's FOF, ¶ 57; see also PTX-1435 (ANDA Module 3.2.P.8.1), 9-10.

"[T]he pH of SVA011 at the post-filtration in-process test was 3.50 yet had pH values upon release testing (reported as 'initial') as high as 3.56 and 3.57—a 0.06 and 0.07 pH unit

increase," and "the post-filtration in-process pH test for SVA012 was 3.44, yet it had pH values on release as high as 3.50—a 0.06 pH unit increase." Par's FOF, ¶ 110; see DTX-993 (stability testing data for batches SVA007-9, 11-14, 16-17); Tr. 244:6-19 (Kirsch), 460:12-461:4 (Park). These were not abnormal findings and, in fact, were also categorized as "representative of" commercial batches: "Eagle's expert Dr. Park agreed that 0.07 or 0.06 pH unit increases from post-filtration pH testing to release testing is 'representative of' and could be expected of commercial batches." Par's FOF, ¶ 111; see Tr. 461:8-12.

"Given that Eagle's current in process specification would allow commercial manufacture at pH 3.54, adding 0.06 or 0.07 pH units to the in-process specification would result in a pH at release of 3.60 or 3.61, within the upper end of the release specification." Par's FOF, ¶ 111; see Tr. 246:9-22 (Kirsch). Based on this upward drift, "future batches manufactured at the upper limit of Eagle's post-filtration in-process pH specification (3.54), would be expected to have release values as much as 0.07 pH units higher (i.e., at least as high as pH 3.61) by the time of release testing, which would place the batch within the upper-end of the release pH specification." Par's FOF, ¶ 115; see Tr. 245:9-246:22 (Kirsch), 461:8-12, 473:13-474:2, 474:7-18 (Park).

Although batches were allegedly "optimized," they still had "significant post-release drift, oftentimes within the very first month thereafter." Par's FOF, ¶ 112. Eagle's expert agreed:

Q: We saw increases of .05, .04, .04, .06, .04, .05 in the data that you say is representative of the batch between release and shelf life; correct?

A: Yes.

Tr. 474:7-11. These values indicate that the pH may increase by as much as 0.06 in representative commercial batches during the shelf life. See id. These representative batches demonstrate that the "optimization" process has not changed the upward drift of the pH for either in-process release testing or during the product's shelf life. Batches that are released at the upper end of the specification are likely to show an upward drift and have a pH greater than 3.6 during the shelf life of the product. See Par's FOF, ¶ 116.

# FDA Should Not Approve Eagle's ANDA Until the Specifications Are Changed.

Eagle's current stability specification of 3.4 to 3.6 therefore may not encompass all batches that are released during the entirety of each batch's shelf life. This is impermissible and may pose safety and efficacy concerns. In fact, Eagle admits that "a product that is released at pH 3.4 to 3.6, but that can later drift [outside of that range] . . . would be non-compliant with Eagle's stability specification, which requires a pH of 3.4 to 3.6 over the entire shelf life of the product." Eagle's FOF, ¶ 339.

Chief Judge Colm Connolly identified the precise issue with Eagle's release and stability specifications: "I can't believe the FDA would allow a product to go out on the market with the understanding that the release specification matches the stability specification unless . . . nothing was brought to its attention to form a belief that the product would degrade over the shelf life." Tr. 47:4-9. Judge Connolly later assumed the following about FDA's procedures in issuing his decision after trial:

Eagle's ANDA product cannot lawfully be distributed for use and would not be approved for distribution by the FDA unless, at all periods during the product's shelf life, the product's pH is between 3.4 and 3.6 (i.e., before rounding between 3.35 and 3.64). Thus, to comply with its ANDA specifications, Eagle's generic version of Vasostrict® must have a pH of 3.4 and 3.6 at the time of its release for distribution and for its entire shelf life.

Par Pharm., Inc. et al. v. Eagle Pharm. Inc., No. 18-823-CFC-JLH, slip op. at 11 (D. Del. Aug. 31, 2021). Eagle should be required to amend the stability specification before its ANDA is approved and demonstrate that such amended stability specification does not pose any concerns with impurities or other safety issues. Alternatively, Eagle should be required to change its release specification and demonstrate that a lower upper limit for the pH range in the release specification will ensure that, even with an upward pH drift, Eagle's product will remain within the stability specification parameters during the entirety of its shelf-life.

# 1. Eagle's ANDA Product Must Be Within the Established Specifications.

For an ANDA product that is not yet approved, like Eagle's ANDA product, FDA should not approve the ANDA unless and until the product conforms to all final specifications. Among other requirements, an ANDA must contain a full description of the drug substance, the method of purification of the drug substance, and "the specifications necessary to ensure the identity, strength, quality, and purity of the drug substance." Batches of an ANDA product must "meet each appropriate specification and appropriate statistical quality control criteria as a condition for their approval and release." ANDA products that fail to meet release and stability specifications do not achieve "satisfactory conformance to final specifications for the drug product" and "shall be rejected." 8

FDA's Good Manufacturing Practice ("GMP") standards further require that all manufacturers maintain "scientifically sound and appropriate specifications, standards, sampling plans, and test procedures designed to assure that components, drug product containers, closures, in-process materials, labeling, and drug products conform to appropriate standards of identity, strength, quality, and purity." In addition, there must be a "[d]etermination of conformance to written descriptions of . . . appropriate specifications for drug products." <sup>10</sup>

Ensuring that the product is within the specification is important because "[s]pecifications are chosen to confirm the quality of the drug substance and the drug product . . . and should focus on those characteristics found to be useful in ensuring the safety and efficacy of the drug substance and drug product."<sup>11</sup> Specifications established in the ANDA are needed for

<sup>&</sup>lt;sup>6</sup> 21 C.F.R. § 314.50(d)(1)(i).

<sup>&</sup>lt;sup>7</sup> 21 C.F.R. § 211.165(d).

<sup>8 21</sup> C.F.R. §§ 211.165(a), (f).

<sup>&</sup>lt;sup>9</sup> 21 C.F.R. § 211.160(b).

<sup>&</sup>lt;sup>10</sup> 21 C.F.R. § 211.160(b)(3).

<sup>&</sup>lt;sup>11</sup> Q6A Specifications: Test Procedures and Acceptance Criteria for New Drug Substances and New Drug Products: Chemical Substances, 65 Fed. Reg. 83,041, 83,042 (Dec. 29, 2000), https://www.govinfo.gov/content/pkg/FR-2000-12-29/pdf/00-33369.pdf.

conformance with stability specifications to ensure that the product will maintain its safety and efficacy profile throughout its entire shelf life.<sup>12</sup>

# 2. Eagle's ANDA Product May Not Meet the Specifications Established in Eagle's ANDA.

As discussed more fully above, the evidence that came out during the patent trial demonstrated that product released by Eagle near the upper end of its release specification for pH is likely to drift above Eagle's stability specification for pH, which is improper. Par's FOF, ¶ 57; see also PTX-1435 (ANDA Module 3.2.P.8.1), 9-10. "[T]he evidence from Eagle's registration batches demonstrates that batches released at the upper end of the release pH specification would be expected to have pH values between 3.7-3.9 during their shelf-lives." Par's FOF, ¶ 116. These batches would fall outside of the stability specification even though they met the release specification requirements.

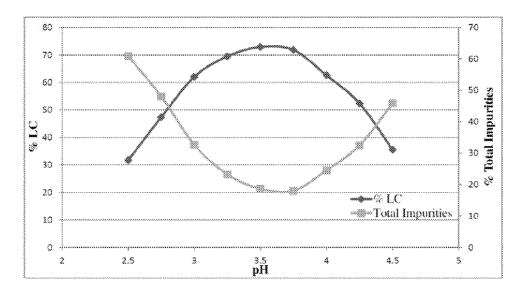
In addition, after Eagle's OOS investigation, Eagle broadened its in-process specification by increasing the upper limit after the optimization batches. These broader in-process specifications were never subsequently tested to ensure that the products met the pH stability specifications. See Par's FOF at 24.

# 3. The ANDA Product's pH Must Be Within the Established Specifications to Ensure Safety and Efficacy.

Specifications in an ANDA are used to support a finding of safety and efficacy, and a product that is outside of the prescribed specifications can potentially pose a risk that the drug is not safe and efficacious.<sup>13</sup> For vasopressin in particular, researchers have determined that stability for a vasopressin formulation varies based on pH; likewise, impurities also increase with increasing pH:

<sup>&</sup>lt;sup>12</sup> See Guidance for Industry: Investigating Out-of-Specification (OOS) Test Results for Pharmaceutical Production, at 2 (Oct. 2006) ("Laboratory testing . . . is necessary to confirm that . . . finished products conform to . . . stability specifications."); see also 21 C.F.R. §§ 211.160, 211.165.

<sup>&</sup>lt;sup>13</sup> See 21 C.F.R. § 211.165(d).



U.S. Patent No. 9,744,209, Fig. 9; see *id.* at col. 57, II. 40-55. Specifically, it is understood that a "pH outside the 3.4-3.6 range will accelerate the degradation of vasopressin," leading to the creation of additional impurities in the product.<sup>14</sup>

Stability and immunogenicity are critical for the safety and efficacy of a drug.<sup>15</sup> Further, impurities may cause immunogenicity issues and should be carefully controlled and characterized.<sup>16</sup> As a result, FDA recommends that "[a] risk-based evaluation of potential immune responses to . . . process- and product-related impurities should be performed . . . ."<sup>17</sup>

<sup>&</sup>lt;sup>14</sup> Medical Review (Vasostrict), 204485Orig1s000, Cross-Discipline Team Leader Review, at 5 (June 12, 2013), available at

https://www.accessdata.fda.gov/drugsatfda\_docs/nda/2014/204485Orig1s000MedR.pdf.

<sup>&</sup>lt;sup>15</sup> See, e.g., Yusuf A. Haggag et al., *Peptides as Drug Candidates: Limitations and Recent Development Perspectives*, 8 BIOMEDICAL J. Sci. & Tech. Res. 1-4 (2018) ("Stability, biological efficacy, pharmacokinetic profile and immunogenicity are the most critical parameters to develop a peptide as a therapeutic agent."); Peize Wu et al., *Impurity identification and quantification for arginine vasopressin by liquid chromatography/high-resolution mass spectrometry*, 34 RAPID COMMC'NS IN MASS SPEC. e8799 (2020) ("For pharmaceutical quality control, impurities may have unexpected pharmacological or toxicological effects on quality, safety, and efficacy of drugs."); Nonclinical Safety Evaluation of the Immunotoxic Potential of Drugs and Biologics, Guidance for Industry, at 2 (Feb. 2020) ("The ability of drugs and biologic products to modify the activity of the immune system is an important part of evaluating the safety and efficacy of these products."); Immunogenicity Testing of Therapeutic Protein Products - Developing and Validating Assays for ADA Detection ("Immune responses to therapeutic protein products have the potential to affect product pharmacokinetics, pharmacodynamics, safety, and efficacy.").

<sup>&</sup>lt;sup>16</sup> Immunogenicity Assessment for Therapeutic Protein Products, at 10 (Aug. 2014) ("Sensitization to the excipients or process/product-related impurities of a therapeutic protein product may also predispose a patient to an adverse clinical consequence.").

<sup>&</sup>lt;sup>17</sup> Immunogenicity Assessment for Therapeutic Protein Products, at 14 (Aug. 2014); see also ANDA Submissions – Refuse to Receive for Lack of Justification of Impurity Limits, Guidance for Industry, at 3 (Aug. 2016) ("To ensure purity, [ANDA] applicants should propose and justify appropriate limits on the impurities in their drug substances and drug product.").

Any increase of the pH of Eagle's product during its shelf life to a level outside of the pH specification range of 3.4 to 3.6 raises potential issues of increased impurities from degradation. If Eagle is not going to reduce its pH release specification in a manner that ensures that its product will remain within the pH stability specification, then Eagle should be required to both amend the upper range of its stability specification and specifically identify and characterize any further degradation and resulting impurities caused by the higher pH level. Without changes to its pH specifications, Eagle's ANDA product may not "meet each appropriate specification and appropriate statistical quality control criteria," may not be safe and efficacious, and should therefore not be approved.<sup>18</sup>

# C. FDA Should Not Approve Any Pending or Future ANDAs Referencing Vasostrict® Until the Specifications Are Changed

In its October 27 letter, FDA directed Par to submit the information above as a citizen petition to "allow others the opportunity to comment and participate in the decision-making process." FDA Ltr. at 1. FDA further stated that it "will also allow Eagle the opportunity to comment publicly on the views and opinions of others . . . ." *Id.* To the extent that other ANDA applications for vasopressin referencing Vasostrict <sup>®</sup> contain pH release specifications that are the same as or close to the pH stability specifications, such products may similarly pose potential safety and immunogenicity issues if they experience a similar upward drift in pH during their shelf life. For the same reasons as for Eagle's ANDA, FDA should ensure that such products will not experience any significant upward drift of pH such that any product released at the upper end of the pH release specification will not exceed the upper end of the pH stability specification during the entirety of the shelf life.

### **CONCLUSION**

Evidence that was made public during the recent patent trial involving Eagle's vasopressin ANDA have demonstrated that, if Eagle manufactures its product near the upper end of the pH range set forth in its release specification, the pH value of its product will drift upward during its shelf life and exceed Eagle's stability specification (pH of 3.4 to 3.6). And, other ANDA applicants similarly have pH release specifications that are the same as or close to their pH stability specifications, raising the same potential issue for any pH drift experienced by the product during its shelf life. FDA should not approve an ANDA where the product is likely to fall outside of the ANDA's stability specification during its shelf life, particularly where, as here, the increased pH environment can lead to further degradation of the vasopressin and the creation of additional impurities and immunogenicity issues. FDA should thus refrain from approving Eagle's ANDA, or any other pending or future ANDA referencing Vasostrict® that cannot demonstrate that its product will not experience an upward pH drift that may exceed the pH stability specification during the entirety of its shelf life until either: (1) the ANDA applicant amends its stability specification and demonstrates that such amended stability specification does not pose any concerns with impurities or other safety issues; or (2) the ANDA applicant amends its release specification and demonstrates that a lower upper limit for the pH range in the release specification will ensure that, even with an upward pH drift, the ANDA product will stay within the stability specification parameters during the entirety of its shelf life.

<sup>&</sup>lt;sup>18</sup> 21 C.F.R. § 211.165(d).

#### **ENVIRONMENTAL IMPACT**

The actions requested herein are subject to categorical exclusion under 21 C.F.R. § 25.31(a).

### **ECONOMIC IMPACT**

Pursuant to 21 C.F.R. § 10.30(b), the Petitioner will submit economic impact information upon request by the Commissioner.

### **CERTIFICATION**

I certify that, to my best knowledge and belief: (a) this petition includes all information and views upon which the petition relies; (b) this petition includes representative data and/or information known to the petitioner which are unfavorable to the petition; and (c) I have taken reasonable steps to ensure that any representative data and/or information which are unfavorable to the petition were disclosed to me. I further certify that (a) I have not intentionally delayed submission of this document or its contents; and (b) the information upon which I have based the action requested herein first became known to me on or about July 28, 2021 (filing of the post-trial briefs discussed herein) and October 27, 2021 (receipt of letter from FDA directing that the request sent to FDA on September 10, 2021 be submitted as a citizen petition). If I received or expect to receive payments, including cash and other forms of consideration, to file this information or its contents, I received or expect to receive those payments from the following persons or organizations: Par Pharmaceutical Inc. – an Endo International Company. I verify under penalty of perjury that the foregoing is true and correct as of the date of the submission of this petition.

Sincerely,

Chad A. Landmon

Chant of M

**Exhibits**