Vol. 70, 2005

Ramesh Kaul, Simon Surprenant, and William D. Lubell.\* Systematic Study of the Synthesis of Macrocyclic Dipeptide  $\beta$ -Turn Mimics Possessing 8-, 9-, and 10-Membered Rings by Ring-Closing Metathesis.

Page 3838, Abstract and Table of Contents. The Abstract and Table of Contents graphic should be replaced with the revised graphic shown below:

Page 3838, Abstract, third sentence. The sentence should read as follows: "The 8-membered lactam possessing cis-amide and cis-olefin geometry as well as 9-membered lactams having trans-amide and cis-olefin configurations were effectively prepared by a general strategy employing the respective protected dipeptide, the first generation of Grubbs' catalyst, and temporary protection of the central amide as a benzyl derivative. The 10-membered macrocycle was synthesized possessing cis- or trans-olefin geometry by employing similar metathesis conditions in the presence or absence of temporary benzyl amide protection, respectively."

Page 3839. Figure 1 should be replaced with the revised Figure 1 shown.

Page 3839, column 1, third paragraph, second sentence. The sentence should read as follows: "Constrained dipeptide (S,R)-5 (R = Ac, X = NHMe) was shown to adopt a conformation similar to that of an ideal type VIa  $\beta$ -turn, as demonstrated by NMR spectroscopy and X-ray analysis.<sup>14</sup>"

Page 3839, column 2, first paragraph. Line 6 reads "twist-boat" and should read "boat-boat".

Page 3839, column 2, first paragraph, line 7. The sentence should read as follows: "The saturated analogue of 8-membered lactam (S,R)-5 was also shown to adopt a *cis*-amide type VIb  $\beta$ -turn conformation by NMR, computational, and X-ray analyses.<sup>16</sup>"

Page 3839, column 2, second paragraph, second sentence. The sentence should read as follows: "These nine-membered macrocycles were shown to possess cis-olefin and trans-amide geometry by NMR analysis. The (S,S)-isomer of  $\mathbf{6}$  (R<sup>1</sup> = Bn, R<sup>2</sup> = COCH<sub>2</sub>NHBoc, X = OEt) was shown to adopt a type II'  $\beta$ -turn by computational analysis and NMR spectroscopy."

Page 3839, column 2, fourth paragraph, first sentence. The sentence should read as follows: "With the precedent that 8-, 9-, and 10-membered macrocyclic peptide lactams adopted respectively type VI, II', and I  $\beta$ -turns, respectively, we sought to develop a general means for constructing the set of heterocyclic dipeptides 5 and 7–9 (R = Boc or Fmoc, X = OH)."

**FIGURE 1.** Representative  $\beta$ -turn structures as well as bicyclic and macrocyclic constrained dipeptide  $\beta$ -turn mimics.

Page 3839. Reference 15a should be changed to ref 16b. Reference 18 should have the following reference added: (b) Dietrich, S. A.; Banfi, L.; Basso, A.; Damonte, G.; Guanti, G.; Riva, R. *Org. Biomol. Chem.* **2005**, *3*, 97.

Page 3841, column 2, third paragraph, third sentence. The sentence should read as follows: "The 10-membered macrocycle (27b) was formed in 87% yield from tertiary amide 23b employing the same conditions used to cyclize secondary amide 23a at a concentration four and a half times higher; however, the olefin geometry was shown to be *cis* as discussed below."

Page 3842. Table 2 and Scheme 5 should be replaced as shown.

Page 3843, column 1, first sentence. The sentence should read as follows: "The vinyl protons of the olefin in 9-membered lactams **25c** and **31** were observed as quadruplets; however, decoupling experiments by irradiation of the allylic signals at 2.70 and 2.30 ppm for **25c** and at 2.69 ppm for **31** demonstrated that the vinylic coupling constant for both compounds was 10.5 Hz consistent with a *cis*-olefin. Similarly, the vinyl coupling constant of the olefin of 10-membered tertiary lactam

TABLE 2. Macrocycle Formation

amide	P	m	n	$\mathbf{R}$	macrocycle	E/Z	yield (%)
20b	Boc	1	1	Dmb	24a	Z	78
21a	Boc	1	$^{2}$	Η	25a		0
21b	Boc	1	$^{2}$	Dmb	25b	Z	80
21c	Fmoc	1	$^{2}$	Dmb	25c	Z	75
22a	Boc	$^{2}$	1	Η	26a		0
<b>22b</b>	$\mathbf{Boc}$	$^{2}$	1	Dmb	26b	$\boldsymbol{Z}$	81
22c	Fmoc	$^{2}$	1	Dmb	26c	Z	71
23a	$\mathbf{Boc}$	$^{2}$	$^{2}$	Η	27a	$\boldsymbol{E}$	77
<b>23b</b>	$\mathbf{Boc}$	$^{2}$	$^{2}$	Dmb	27b	$\boldsymbol{Z}$	87
23c	Boc	2	2	Hmb	27c	Z	86

**27b** was 11.0 Hz, indicative of a *cis* double bond. The X-ray structure of macrocycle **27a** which was prepared from linear precursor **23a** bearing a secondary amide had previously demonstrated the presence of a *trans*-olefin.<sup>19\*</sup>

Page 3843, Conclusions, fifth sentence. The sentence should read as follows: "The 9-membered lactams 7 and 8 also possessed *cis*-olefin geometry. On the other hand, olefin geometry was contingent on the manner that 10-membered lactams 27b and 27a were synthesized; tertiary amide 23b gave the *cis*-olefin and secondary amide 23a provided *trans*-olefin."

Page 3844, column 1, sixth paragraph, line 8. Replace "6.09 (dd, 1H, J = 9.1, 18.0), 5.61 (dd, 1H, J = 9.1, 18.0)" with "6.09 (q, 1H, J = 9.3), 5.61 (q, 1H, J = 9.1)".

Page 3844, column 2, second paragraph, line 7. Replace "6.08 (dd, 1H,  $J=8.8,\ 18.9$ ), 5.65 (ddd, 1H,  $J=6.04,\ 10.95,\ 10.84$ )" with "6.08 (q, 1H, J=9.3), 5.65 (ddd, 1H,  $J=6.0,\ 11.0,\ 10.8$ )".

Page 3844, column 2, fourth paragraph, line 6. Replace "6.04 (dd, 1H, J=8.6, 18.5), 5.75 (bs, 1H), 5.56 (dd, 1H, J=8.7, 18.5)" with "6.04 (q, 1H, J=9.1), 5.75 (bs, 1H), 5.56 (m, 1H)".

Page 3844. The following sentence should be added to the Acknowledgment. "We acknowledge Professor Luca Banfi for advice concerning olefin stereochemistry."

Page 3844. The following text should be added to the Supporting Information paragraph: "decoupling experiments on compounds **25c** and **31**".

## SCHEME 5. Synthesis of Macrocycle N-(Fmoc)-dipeptides 30 and 31

JO056027O

10.1021/jo056027o Published on Web 05/11/2005

Wei Zhang, Li-Xin Wang, Wen-Jian Shi, and Qi-Lin Zhou\*. Copper-Catalyzed Asymmetric Ring Opening of Oxabicyclic Alkenes with Grignard Reagents.

Pages 3734–3736. The structures of the *syn* products in the TOC, abstract, and Table 3 are incorrect. The correct structures of syn products are shown below.

Equation in TOC and abstract:

Equation in Table 3:

$$\begin{array}{c} R^1 \\ R^1 \\ R^2 \\ R^3 \end{array} \begin{array}{c} R^2 \\ 3 \text{ mol } \% \text{ Cu}(\text{OTf})_2 \\ 6.3 \text{ mol } \% \text{ } (S_a, S, S)\text{-SIPHOS-PE} \\ \text{toluene, -20 °C} \end{array} \begin{array}{c} R^1 \\ R^2 \\ R^3 \\ R^3 \\ R^3 \\ R^4 \\ R^1 \\ R^2 \\ R^3 \\ R^3 \\ R^1 \\ R^2 \\ R^3 \\ R^3 \\ R^3 \\ R^4 \\ R^2 \\ R^3 \\ R^3 \\ R^4 \\ R^2 \\ R^3 \\ R^3 \\ R^4 \\ R^3 \\ R^4 \\ R^4 \\ R^2 \\ R^3 \\ R^3 \\ R^4 \\ R^$$

JO056028G

10.1021/jo056028g Published on Web 05/05/2005