



Cite this: *Chem. Commun.*, 2016, 52, 13417

DOI: 10.1039/c6cc90497a

www.rsc.org/chemcomm

## Correction: Triplex-forming peptide nucleic acid modified with 2-aminopyridine as a new tool for detection of A-to-I editing

Chiara Annoni,<sup>a</sup> Tamaki Endoh,<sup>a</sup> Dzyana Hnedzko,<sup>b</sup> Eriks Rozners<sup>b</sup> and Naoki Sugimoto<sup>\*ac</sup>

Correction for 'Triplex-forming peptide nucleic acid modified with 2-aminopyridine as a new tool for detection of A-to-I editing' by Chiara Annoni *et al.*, *Chem. Commun.*, 2016, **52**, 7935–7938.

The authors regret that minor deviations in buffer pH due to a faulty pH meter have been identified in the experiments that provided the data presented in the original article, all measured pH values have since been found to be slightly higher than the true pH values. As the affinities of the triplex-forming peptide nucleic acids for both the wild-type and the edited RNA hairpins are sensitive to buffer pH, the experiments furnishing the binding constants and other relevant data, reported in Fig. 1, Table 1 and Fig. 2 of the original article, as well as Fig. S2, S3, S6 and S7 and Tables S2–S5 of the original ESI, have been re-run. Revised versions of Fig. 1, Table 1 and Fig. 2 are included herein. The ESI attached to the original article has also been updated accordingly.

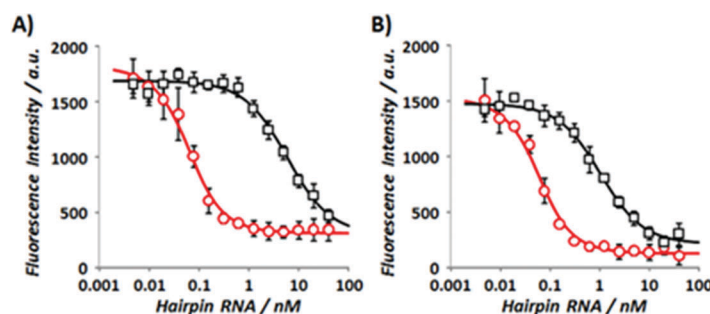


Fig. 1 Fluorescence of PNA-HF488 upon triplex formation at 25 °C in a buffered solution at pH 7.0; (A) wild-type P5AC (black squares) and edited P5IC (red circles) hairpin RNAs, and (B) wild-type P5AU (black squares) and edited P5IU (red circles) hairpin RNAs.

Table 1  $K_{A25}$  values for the interaction of PNA-HF488 with hairpin RNAs at indicated pH values obtained by fluorescence titration at 25 °C<sup>a</sup>

Hairpin RNA	$K_{A25} (\times 10^9 \text{ M}^{-1})$					
	pH 6.4	pH 6.6	pH 6.8	pH 7.0	pH 7.2	pH 7.4
P5AC	$8.66 \pm 1.8$	$2.44 \pm 0.44$	$0.522 \pm 0.02$	$0.173 \pm 0.02$	$0.051 \pm 0.02$	n.d. <sup>b</sup>
P5IC	$125 \pm 17$	$97.2 \pm 11$	$140 \pm 42$	$27.2 \pm 7.5$	$5.16 \pm 1.1$	$0.750 \pm 0.13$
P5AU	$63.8 \pm 11$	$27.0 \pm 2.4$	$7.82 \pm 0.62$	$0.971 \pm 0.05$	$0.157 \pm 0.04$	n.d. <sup>b</sup>
P5IU	$101 \pm 17$	$106 \pm 16$	$82.1 \pm 12$	$29.5 \pm 1.4$	$5.28 \pm 0.56$	$1.18 \pm 0.12$

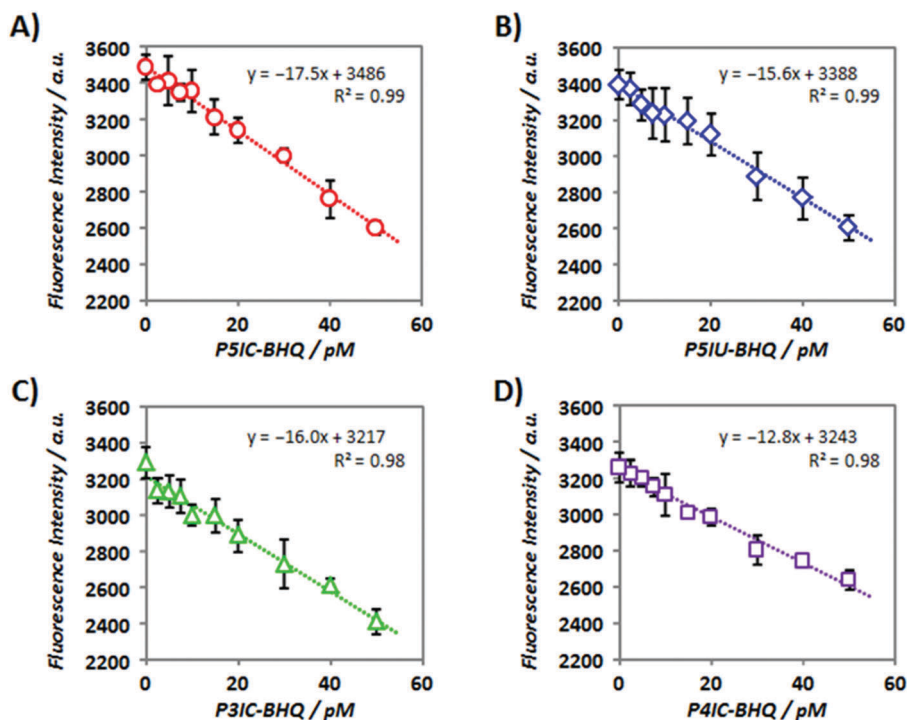
<sup>a</sup> The reported values are means  $\pm$  standard deviations from at least three independent measurements. <sup>b</sup> The value could not be determined due to low affinity.

<sup>a</sup> Frontier Institute for Biomolecular Engineering Research (FIBER), Konan University, 7-1-20 Minatojima-minamimachi, Chuo-ku, Kobe 650-0047, Japan.  
E-mail: sugimoto@konan-u.ac.jp

<sup>b</sup> Department of Chemistry, Binghamton University, State University of New York, Binghamton, New York 13902, USA

<sup>c</sup> Faculty of Frontiers of Innovative Research in Science and Technology (FIRST), Konan University, 7-1-20 Minatojima-minamimachi, Chuo-ku, Kobe 650-0047, Japan





**Fig. 2** Detection of edited hairpin RNAs, (A) P5IC, (B) P5IU, (C) P3IC, and (D) P4IC, in the presence of cognate wild-type hairpin RNA. Hundred pM PNA-HF488 was added to solutions of the wild-type and the edited hairpin RNAs mixed at different ratios at a total concentration of 100 pM. Fluorescence intensities of PNA-HF488 were measured after 1 hour incubation in a buffer containing 30 mM HEPES-KOH, pH 7.0, 100 mM KCl, and 0.01% CHAPS at 25 °C. Values are averages  $\pm$  standard deviations from five independent measurements. The dotted lines represent the line of regression for the calibration curve. The regression equation and the  $R$ -squared values are displayed in the charts.

As a result of the identified errors, the originally quoted limit of detection (LOD) values for the inosine-containing hairpin RNAs, P3IC, P4IC, P5IC and P5IU, are slightly increased to 17.7, 23.7, 13.0, and 17.3 pM, respectively (Table S4), but still remain 1000 times lower than the reported experimental conditions adopted by fluorometric methodology.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

