

**Supplemental Table 1. Summary of training accuracy results based on fundus photography**

Trial 1.	Accuracy	Sensitivity	Specificity
<i>ABCA4</i>	-	100%	96%
<i>EYS</i>	-	91%	100%
<i>RP1L1</i>	-	94%	92%
Normal	-	73%	98%
Total	89%	90%	96%
Trial 2.	Accuracy	Sensitivity	Specificity
<i>ABCA4</i>	-	75%	100%
<i>EYS</i>	-	100%	95%
<i>RP1L1</i>	-	94%	92%
Normal	-	73%	98%
Total	88%	100%	100%
Trial 3.	Accuracy	Sensitivity	Specificity
<i>ABCA4</i>	-	100%	100%
<i>EYS</i>	-	100%	100%
<i>RP1L1</i>	-	100%	96%
Normal	-	88%	100%
Total	97%	97%	99%
Trial 4.	Accuracy	Sensitivity	Specificity
<i>ABCA4</i>	-	78%	96%
<i>EYS</i>	-	100%	95%
<i>RP1L1</i>	-	100%	100%
Normal	-	87%	100%
Total	94%	91%	98%

Evaluations were conducted with a randomised 4-fold cross-validation method, and the accuracy of concordance (aimed >80%) between the genetic diagnosis and the machine diagnosis was calculated through the training to the fixed application program interface (API) for further testing.