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 COMMENTS AND  
 RESPONSES
 

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**Response to  
 Comment on: Sun  
 et al. Protection From  
 Retinopathy and  
 Other Complications  
 in Patients With  
 Type 1 Diabetes of  
 Extreme Duration:  
 The Joslin 50-Year  
 Medalist Study.  
 Diabetes Care  
 2011;34:968-974**

**W**e thank Conway et al. (1) for the discussion of their findings regarding skin intrinsic fluorescence in the Pittsburgh Epidemiology of Diabetes Complications (EDC) study cohort. Their results—that skin intrinsic fluorescence values are higher in individuals with no diabetic retinopathy (DR) as compared with more advanced DR—are consistent with our findings in the Medalist cohort in which increased concentrations of certain advanced glycation end

products (carboxymethyl-lysine [CML] and the early glycation product fructose-lysine in the Medalists) were associated with protection from proliferative DR. Our findings of an inverse relationship between CML levels and proliferative retinopathy may suggest low levels of endothelial or inflammatory cell receptor for advanced glycation end product expression or activation (2) in response to its ligand CML in these participants.

In contrast to the Medalist group in which no difference in glycemic control was found between those with and without proliferative DR, the EDC participants without DR had better glycemic control than those with DR. This difference may reflect the fact that the EDC population had a shorter average duration of diabetes than the Medalists (41 vs. 57 years) and thus may have a lower percentage of participants with elevated protective factors against complications. Nonetheless, this report further confirms the existence of a subgroup of individuals who appear to be highly protected against the detrimental effects of chronic hyperglycemia and supports additional characterization of this unique population in hopes of identifying novel protective factors against retinopathy and other microvascular complications of diabetes.

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DOI: 10.2337/dc11-1188

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**Acknowledgments**—No potential conflicts of interest relevant to this article were reported.

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#### References

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