**Abstract:** About 10 percent of all colorectal cancers are in subjects who are not yet 50 (EO-CRC) and the occurrence of early onset colorectal cancer (EO-CRC) is rising in the US. Patients with CRC are twice as likely to have diabetes or be overweight. Using targeted exome sequencing of germline DNA from EO-CRC subjects, we identified a missense mutation at Ala98Val within the DNA binding domain of Hepatic Nuclear Factor 1 alpha (HNF1A, 12q24.31, Rs1800574). **HNF1A** is the most frequently mutated gene in diabetic individuals whose onset of diabetes occurs typically before age 25 (MODY3 locus). **Aim:** To demonstrate that the **HNF1A** variant provides a genomic landscape for EO-CRC to develop in the setting of a high fat diet. **Methods:** **HNF1A** was identified using targeted exon sequencing of archived leukocyte DNA from subjects with EO-CRC. Flag-tagged WT and **HNF1A** expressing plasmids were transfected into HCT116 colon cancer cells and nuclear extracts were prepared for Electrophoretic Mobility Shift Assays (EMSAs) to test binding differences. An **Hnf1a** mouse model was generated using CRISPR/Cas9. WT, **Hnf1a** and **Hnf1a** mice were placed on the 3 diets—normal chow, a high fat diet (HFD) or a high sugar (fructose) diet (HSD) after weaning at 3 weeks. The mice were followed for 12 months, weighed monthly, and observed for clinical signs of morbidity. After euthanizing, blood and tissue were collected for histology and qPCR. **Results:** Of the 158 EO-CRC participants, 16 (10%) had missense mutation in the **HNF1A**, with 13 of the missense mutations at p.A98V within the proximal DNA binding domain. Extracts from HCT116 cells transfected with the A98V mutant were used for EMSAs, which demonstrated reduced HNF1A binding to an HNF1A consensus DNA element. Over 12 mos., none of the WT mice on normal, HFD or HSD developed polyps. One of the **Hnf1a** mice each developed polyps on normal chow and the HSD (~2%). However, from 6-12 months, both **Hnf1a** and **Hnf1a** mice collectively developed colon polyps on a HFD (14%). Ki-67 staining was increased in the polyps, while normal colon tissue demonstrated staining only at the crypt base. Moreover, both the **Hnf1a** and **Hnf1a** mice on the HFD gained more weight, developed liver steatosis compared to mice on normal chow or on the HSD, suggestive of the metabolic syndrome. **Conclusions:** The **HNF1A** variant is increased among a cohort of EO-CRC patients. **HNF1A** decreased DNA binding. **Hnf1a** and **Hnf1amice** developed polyps on the HFD, suggesting the **HNF1A** variant predisposes EO-CRC subjects to CRC on the HFD.