Testimony Prepared for Legislative Hearings on
Establishing a Pharmacogenomics Experts Task Force

Prepared by

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Good afternoon, Madam Chair and members of the committee. My name is David Gregornik and I am the Director of the Clinical Pharmacogenomics Program at Children's Minnesota. I am a native Minnesotan and graduated from the U of M College of Pharmacy. I completed post-doctoral training at St. Jude Children's Research Hospital in Memphis, TN, a pioneer in pediatric pharmacogenomic research and clinical implementation. During my 18 years at St Jude I saw first-hand the value of pharmacogenomics in reducing suffering of children from adverse drug reactions and ineffective drugs. Because of the strong scientific evidence supporting its use, every child that receives care at St. Jude is offered pharmacogenomic testing.
I was recruited to Children's Minnesota create and lead a new pharmacogenomics program. That program includes a specialty outpatient clinic and an inpatient consult service, where we see patients with cancer, mental health issues and other medically complex conditions who are struggling with toxicities and/or ineffective medications. We are one of the only clinics in Minnesota and the upper mid-west that offers formal pharmacogenomic testing for children and adolescents.

There are a number of reasons why Children's Minnesota is one of only a few places offering this type of care. First, pharmacogenetic results are complex and few providers have the educational background to understand how to use the results. Second, electronic health records are not currently built to manage this type of information effectively and special systems must be designed to manage the data. Pharmacogenomic results will last for an individual's entire life, meaning that once tested, they do not require retesting and must be available for use in selecting future medications. A third obstacle is that most Minnesota insurance payers do not yet reimburse us for this testing. Most patients pay for

pharmacogenomic testing out of pocket, which is impossible for many of the patients who would benefit most.

At Children's Minnesota we have successfully addressed many of these barriers, but few other organizations have the expertise and resources to implement pharmacogenomic guided care.
I would like to tell a story about one of my first patients at Children's Minnesota. At the time, she was a 19 year old who had an 8 year history of major depression with multiple suicide attempts and hospital admissions. Her list of unsuccessful medications over the preceding 8 years was long. Many of the medications caused her intolerable side effects, nausea, diarrhea, excessive sweating and hot flashes that prevented her from taking them as prescribed. Additional, medications were added to stabilize her mood and to help her sleep. She underwent pharmacogenomic testing and her results revealed that she had a decreased ability to break down many of the medications that had caused her side effects. A new medication was selected based on her test results. This new medication did not cause intolerable side effects, and she was able to take the medication as ordered. Within a few weeks, she was showing signs of improvement and eventually her psychiatrist was able to stop or greatly decrease the dose of her supportive medications. Her parents were overjoyed with her response and later that year, she was able to take a full load of classes in college for the first time. She continues to do well on her current medications. If we had been able to test her earlier, I believe we could have gotten her on an effective medication earlier preventing her experience with adverse drug reactions.

In closing, I strongly support the establishment of a PGx task force and would be willing to serve on that task force to benefit the citizens of Minnesota, especially our children and adolescents.

Thank you