IN THE COURT OF APPEALS OF THE STATE OF OREGON

STATE OF OREGON, Plaintiff-Respondent, v. JAIME ALFREDO TINOCO CAMERANA, Defendant-Appellant.	Washington County Circuit Court Case No. C150795CR CA A165374

BRIEF OF *AMICUS CURIAE*
OREGON JUSTICE RESOURCE CENTER

On Appeal from a Judgment of the Circuit Court for Washington County
Honorable Kirsten E. Thompson, Judge

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BRIEF ON THE MERITS OF *AMICI CURIAE* OREGON JUSTICE RESOURCE CENTER

ADOPTION OF DEFENDANT-APPELLANT'S OPENING BRIEF

The OJRC as amicus curiae agrees with and adopts the statement of the case, the statement of the facts, and the standard of review set forth in the opening brief submitted by Defendant-Appellant.

INTRODUCTION

Amicus Curiae Oregon Justice Resource Center (OJRC) is a non-profit organization founded in 2011. OJRC works to "dismantle systemic discrimination in the administration of justice by promoting civil rights and enhancing the quality of legal representation to traditionally underserved communities." OJRC Mission Statement, www.ojrc.info/mission-statement. The OJRC Amicus Committee is comprised of Oregon attorneys from multiple disciplines and law students from Lewis & Clark Law School, where OJRC is located.

Defendant was sentenced to a term of life without parole (LWOP) for crimes committed while he was a minor. His sentence precludes any opportunity to ever request release from prison and condemns him to die an elderly man in prison for the actions he took as a child. The issue addressed by this brief is the constitutionality of sentencing juvenile offenders to a lifetime of incarceration without the hope or possibility of parole or early release. In this

case, OJRC asks this court to reverse and remand the lower court's sentence of defendant to life imprisonment without the possibility of parole. The United States Supreme Court has likened a lifetime sentence for a juvenile to the death penalty due to both its finality and the inordinate amount of time such young defendants will serve in prison due to their youth. *See Graham v. Florida*, 560 U S 48, 130 S Ct 2011, 176 L Ed 2d 825 (2010).

Children are fundamentally different from adults. Decades of medical and cognitive research have established that juvenile offenders' (or any minors') intellectual development, maturity, and decision-making abilities are greatly impaired as compared to their far more mentally developed adult counterparts. The United States Supreme Court has consistently recognized that because children are fundamentally different from adults, they are therefore categorically less deserving of the very harshest forms of criminal punishment. *See Roper v. Simmons*, 543 US 551, 125 S Ct 1183, 161 L Ed2d 1 (2005); *Graham v. Florida*, 560 US 48, 130 S Ct 2011, 176 L Ed2d 825 (2010); *Miller v. Alabama*, 567 US 460, 132 S Ct 2455, 183 L Ed2d 407 (2012); *Montgomery v. Louisiana*, 577 US __, 136 S Ct 718, 193 L Ed2d 599 (2016). As explained in *Miller*, "[b]ecause juveniles have diminished culpability and greater prospects for reform * * * 'they are [categorically] less deserving of the most severe punishments.'" 567 US at 471 (quoting *Graham*, 560 US at 68).

Likewise, there is a growing body of Oregon case law recognizing the

role that brain science plays in facilitating our understanding of how diminished capacity mitigates culpability as it relates to criminal sentencing. Article 1, section 16, of the Oregon Constitution provides that "all penalties shall be proportioned to the offense." This court has recognized that a sentencing court can consider a defendant's diminished mental capacity in determining whether a mandatory minimum sentence is constitutional. *State v. Wilson*, 243 Or App 464, 259 P3d 1004 (2011). Likewise, in *State v. Rodriguez/Buck*, 347 Or 46, 217 P3d 659 (2009), the court recognized the importance of considering a defendant's diminished mental capacity and learning disabilities in a mandatory sentencing context. The principle that a defendant's mental abilities matters in formulating a criminal sentence was further strengthened in *State v. Ryan*, 361 Or 602, 396 P3d 867 (2017). In *Ryan* the Oregon Supreme Court held that in making a proportionality analysis under Article I, section 16 "a sentencing court *must* consider a defendant's intellectual disability in comparing the gravity of a defendant's offense with the severity of a mandatory prison sentence on such an offender." *Id.* at 621.

Research into the developmental psychology and neuroscience confirms and bolsters the conclusion that juveniles, as a group, categorically differ from adults in salient ways. Juveniles, including older adolescents, are less able to restrain impulses and are less likely to exercise self-control over their actions. Youths are less capable than adults of considering alternative courses of action

and are less able to maturely weigh both risks and rewards. Juveniles are less oriented to the future and, consequently, are less capable of fully apprehending the consequences of their often-impulsive actions. Juveniles' personalities are still malleable and changing as they grow and mature, and, as children, they are far more susceptible to peer pressure and environmental influences than adults.

Consistent with recognized developmental characteristics of adolescents, recent developments in neuroscientific research document that adolescent brains are mechanically not yet fully developed in regions related to higher level executive functioning such as forward planning, impulsivity control, and the evaluation of risks. These conclusions are consistent with juveniles' demonstrated social and emotional psychosocial immaturity.

The United States is the only nation that allows juveniles to serve life sentences without parole. Appellant's Opening Brief at 64. Twenty-one states and the District of Columbia have already banned life without parole sentences for juveniles; most within the last five years. This trend reflects the consistency of societal change towards protecting children from the harshest categories of criminal sentencing. *Id.*

ARGUMENT

I. Courts have long recognized that juveniles are cognitively and developmentally different from adults.

The United States Supreme Court has recognized "the distinctive attributes of youth diminish the penological justifications for imposing the

harshest sentences on juvenile offenders, *even when they commit terrible crimes*." *Miller*, 567 US at 472 (emphasis added). Following the United States Supreme Court's decision in *Miller v. Alabama*, the states and the federal government are required to consider the unique circumstances of each juvenile defendant in each individualized sentence. *Id.* The result was that for juveniles a mandatory life sentence without the possibility of parole is unconstitutional.

Miller and its predecessor cases were decided against a background of the growing consensus illustrating the unique characteristics of juvenile brains. Research on adolescent brain development confirms what is commonsense: that children are fundamentally less developed from adults. It is this appreciation of how children so markedly differ that is critical to identifying age appropriate criminal sentences. The premise that youths, by their very nature, are different—what Justice Anthony Kennedy described as what "any parent knows"—was central to the United States Supreme Court's past decisions excluding juveniles from the harshest sentencing outcomes. *Roper*, 543 US at 569. Since the 2005 decision in *Roper* , and continuing on through the United States Supreme Court's decisions in *Graham v. Florida*, *Miller v. Alabama and Jackson v. Hobbs*, and *Montgomery v. Louisiana*, the Supreme Court acknowledged the growing scientific consensus regarding juvenile brain development by constitutionally banning the use of capital punishment for juveniles (*Roper v. Simmons*), limiting life without parole sentence to homicide

offenders (*Graham v. Florida*), banning the use of mandatory life without parole (*Miller v. Alabama* and *Jackson v. Hobbs*,), and then applying that decision retroactively, respectively (*Montgomery v. Louisiana*).

In *Miller* the Supreme Court recognized that "developments in psychology and brain science continued to show fundamental differences between juvenile and adult minds" and that "[i]t is increasingly clear that adolescent brains are not yet fully mature in regions and systems related to higher-order executive functions such as impulse control, planning ahead, and risk avoidance." *Miller*, 567 US at 471-72, 472 n 5 (internal quotation marks omitted). These recognized characteristics—youthful transient rashness, the juvenile penchant for taking risks, and an inability to assess consequences—lessened a juvenile's moral culpability as well as "enhanced the prospect that, as the years go by and neurological development occurs, his deficiencies will be reformed." *Id.* at 472 (internal quotation marks omitted).

Miller requires "[t]he opportunity for release * * * be afforded to those who demonstrate the truth of *Miller's* central intuition-that children who commit *even heinous crimes* are capable of change." *Montgomery*, 136 S Ct at 736 (emphasis added). Accordingly, under *Miller*, a sentencing court should focus on the ability of an individual to *change* even after committing a crime such as murder, and even if that crime was especially terrible.

II. Recent studies have documented a well-recognized biological basis for juvenile behavioral immaturities.

The United States Supreme Court has increasingly rooted its decisions regarding juvenile sentencing upon a firmly established body of medical literature and neuroscientific research. The trend is one of appreciating how an adolescent's brain differs from that of an adult due to mechanical differences. *See Graham*, 560 US at 68 (reaffirming that since *Roper*, "developments in psychology and brain science continue to show fundamental differences between juvenile and adult minds," such as "in parts of the brain involved in behavior control") *see also* Laurence Steinberg, *The Influence of Neuroscience on US Supreme Court Decisions about Adolescents' Criminal Culpability*, 14 Nature Neuroscience 513 (2013); Richard J. Bonnie & Elizabeth S. Scott, *The Teenage Brain: Adolescent Brain Research and the Law*, 22 Current Directions in Psyhol Sci 158 (2013).

Neuroscientists continue to accumulate ample evidence that the adolescent brain is not yet fully developed in many critical respects. By now, "[t]here is incontrovertible evidence of significant changes in brain structure and function during adolescence," and, "[a]lthough most of this work has appeared just in the last 10 years, there is already strong consensus among developmental neuroscientists about the nature" of these changes. Laurence Steinberg, *Should the Science of Adolescent Brain Development Inform Public Policy?*, 64 Am Psychologist 739, 742 (2009). While research continues into

the precise meaning and effect of the changes in the brain during adolescence, the data is consistent with and suggests the possible physiological basis for the psychosocial immaturity observed in adolescents.

The crucial part of the brain known as the prefrontal cortex is pivotal when it comes to the so-called executive functions of "response inhibition, emotional regulation, planning and organization." Elizabeth R. Sowell. *et al*, *Mapping Continued Brain Growth and Gray Matter Density Reduction in Dorsal Frontal Cortex: Inverse Relationships During Postadolescent Brain Maturation*, 21 J Neurosci 8819 (2001), note 42, at 860; *see* Eveline A. Crone *et al*, *Neurocognitive Development of Relational Reasoning*, 12:1 Developmental Sci 55, 56 (2009) (explaining that "[n]europsychological and neuroimaging studies have shown that prefrontal cortex is strongly implicated in relational reasoning."); *see also* Michael S. Gazzaniga et al*,* C*ognitive Neuroscience: The Biology of the Mind* (2d ed. 2002), note 37, at 75; Isabelle M. Rosso, *et al*, *Cognitive and Emotional Components of Frontal Lobe Functioning in Childhood and Adolescence*, 1021 Annals NY Acad Sci 355 (2004), note 29, at 360-61 (finding a correlation between frontal lobe development in adolescents, response inhibition and social anxiety levels); *see generally*, Silvia A. Bunge *et al*, *Immature Frontal Lobe Contributions to Cognitive Control in Children: Evidence from fMRI*, 33 Neuron 301 (2002).

The prefrontal cortex is the brain's region that integrates data and

information, supporting the planning of voluntary goal-directed responses and exerting control over the brain's more impulsive systems. As such, the prefrontal cortex is linked to many cognitive abilities, such as voluntary behavior control, inhibition, risk management, evaluation of reward and punishment, and impulsivity control. *See* B.J. Casey *et al*, *Structural and Functional Brain Development and Its Relation to Cognitive Development*, 54 Biological Psychol 241, 244 (2000); R. Dias *et al*, *Dissociable Forms of Inhibitory Control Within Prefrontal Cortex with an Analog of the Wisconsin Card Sort Test: Restriction to Novel Situations and Independence from "On-Line" Processing*, 17 J Neurosci 9285 (1997); Sarah Durston & B.J. Casey, *What Have We Learned About Cognitive Development from Neuroimaging?*, 44 Neuropsychologia 2149 (2006), note 37, at 1016; *see also* Deborah Yurgelun-Todd, *Emotional and Cognitive Changes During Adolescence*, 17 Current Opinion in Neurobiology 251 (2007), note 7, at 253; Facundo Manes *et al*, *Decision-Making Processes Following Damage to the Prefrontal Cortex*, 125 Brain 624 (2002); J. O'Doherty *et al*, *Abstract Reward and Punishment Representations in the Human Orbitofrontal Cortex,* 4 Nature Neurosci 95 (2001); Robert D. Rogers *et al*., *Choosing Between Small, Likely Rewards and large, Unlikely Rewards Activates Inferior and Orbital Prefrontal Cortex*, 20 J Neurosci 9029 (1999); Antoine Bechara *et al*, *Characterization of the Decision-Making Deficit of Patients with Ventromedial Prefrontal Cortex Lesions*, 123

Brain 2189, 2198-99 (2000).

Generally, the prefrontal cortex is associated with decision-making. The prefrontal cortex governs the ability to judge and properly appraise the future consequences of one's actions, recognize deception, respond to positive and negative feedback, remember, and make moral judgments. *See* Samantha B. Wright *et al*, *Neural Correlates of Fluid Reasoning in Children and Adults*, 1:8 Frontiers Human Neurosci 7 (2008) (finding that important changes in the prefrontal cortex during adolescence lead to the development of logical reasoning abilities); Bechara, (2000), 123 Brain, note 50; D. D. Langleben *et al., Brain Activity During Simulated Deception: An Event-Related Functional Magnetic Resonance Study*, 15 Neuroimage 727 (2002); R. Elliot *et al*, *Differential Neural Response to Positive and Negative Feedback in Planning and Guessing Tasks*, 35 Neuropsychologia1395 (1997); Beatriz Luna, *The Maturation of Cognitive Control and the Adolescent Brain*, in From Attention to Goal-Directed Behavior (Francisco Aboitiz and Diego Cosmelli eds, Springer Berlin Heidelberg 2009); Jorge Moll *et al*, *Frontopolar and Anterior Temporal Cortex Activation in a Moral Judgment Task: Preliminary Functional MRI Results in Normal Subjects,* 59 Arq Neuropsiquiatr 657 (2001); Steve W. Anderson *et al*, *Impairment of Social and Moral Behavior Related to Early Damage in Human Prefrontal Cortex*, 2 Nature Neurosci 1032 (1999).

Unlike an adult, a juvenile's frontal lobes are still developing and are

structurally immature well into late adolescence. In fact, the prefrontal cortex is "one of the last regions to mature." *See* Gogtay, Nitin *et al*, *Dynamic Mapping of Human Cortical Development During Childhood Through Early Adulthood*, 101 Proc Nat'l Acad Sci 8174 (2004), note 42, at 860; The net effect is that "response inhibition, emotional regulation, planning, and organization * * * continue to develop between adolescence and young adulthood." Sowell (1999), 21 J. Neurosci note 42, at 860; *see also* Kenneth E. Towbin & John E. Schowalter, *Adolescent Development, in* Psychiatry 145, 151-52 (Allan Tasman ed, 2d ed 2003) (recognizing the link between "improvement during adolescence in specific cognitive skills such as organizing information, conceptualization, perspective taking, and social perception, to structural changes in frontal cortical and subcortical structures").

In the adolescent brain the frontal lobes, specifically, the prefrontal cortex, is immature in two distinct ways that affect a youth's ability to cognitively regulate their own behavior. The first is the brain's gray matter, where neuronal brain cells reside in the brain and continue to mature, supporting the complex neural processing needed for generating cognitive plans. Second, the integrity of white matter neuronal connections--which support the fast connectivity needed to executively control impulsive responses--is still improving as the child ages. Maturation of processes in gray and white matter of a juvenile's brain support the complex information processing that

underlies executive voluntary control of behavior, which underlies decreased risk taking in adulthood. When fully mature, the ability to effectively process complex information and quickly affect behavior supports the adult's ability to make better-informed executive decisions. *See* Steven Petersen *et al*, *Functional Brain Networks Develop from a "Local to Distributed" Organization*, 5:5 PLOS Computational Biology 1, 8 (2009) (increased connectivity "promote[s] interactions between brain regions * * * allowing for a more effective 'solution' to any particular set of processing demands").

III. Juveniles display underdeveloped abstract reasoning and decision-making skills, which make it difficult for them to foresee and appreciate the consequences of their actions.

It is now better understood that, in addition to the fact that youths' brains are undergoing dramatic changes in their cognitive control regions, there is also substantial change occurring in the areas of the brain responsible for human emotions. During tasks that require self-control, adults are able to employ a far wider network of brain regions than do adolescents, rendering the exercise of self-control easier by distributing the work across numerous areas of the brain rather than overtaxing a smaller number of regions. Laurence Steinberg, *The Science of Adolescent Brain Development and Its Implication for Adolescent Rights and Responsibilities*, Human Rights and Adolescence 59, 64 (Jacqueline Bhabha ed, 2014).

"[I]t is clear that important progress in the development of [social and

emotional maturity] occurs sometime during late adolescence, and that these changes have a profound effect on the ability to make consistently mature decisions." Elizabeth Cauffman & Lawrence Steinberg, *(Im)Maturity of Judgment in Adolescences: Why Adolescents May Be Less Culpable Than Adults*, 18 Behav Sci & L 741 (2000), note 9, at 741, 756, 758 (noting that the most dramatic increase in psychosocial maturity occurs between ages 16 and 19); *see* Bonnie Halpern-Felsher & Elizabeth Cauffman, *Costs and Benefits of a Decision: Decision-Making Competence in Adolescents and Adults*, 22 J Applied Developmental Psychol 257 (2001), note 15, at 271 ("[I]mportant progress in the development of decision-making competence occurs sometime during late adolescence[.]"). This explains why children experience strong feelings and are unable to resist and control emotional impulses.

Juveniles lack the full capacity to envision future consequences of their actions, particularly in the face of poor environmental situations or under peer pressure. The ability to withstand external pressures is a crucial component of emotional and social maturity, and is necessary in order to make reasoned and mature decisions. The United States Supreme Court has recognized, "juveniles are more vulnerable * * * to negative influences and outside pressures, including peer pressure." *Roper*, 543 US at 569.

Because of their developmental immaturity, adolescents are more susceptible than adults to the negative influences of their environment and their

actions are shaped directly by family and peers in ways that adults are not. "Adolescents are dependent on living circumstances of their parents and families and hence are vulnerable to the impact of conditions well beyond their control." Alan Kazdin, *Adolescent Development, Mental Disorders, and Decision Making of Delinquent Youths, in Youth on Trial*, 33 (Thomas Grisso & Robert G. Schwartz eds, 2000), note 12, at 47. Family problems and bad neighborhood conditions are major risk factors for juvenile crime, including homicide. *Id*. at 47-48; *see also* Rolf Loeber & David Farrington, *Young Homicide Offenders and Victims: Risk Factors, Prediction, and Prevention from Childhood* 61 & tbl 4.1 (2011) (noting the high likelihood that homicide offenders came from either a broken family or bad neighborhoods); Jeffrey Fagan, *Contexts of Choice by Adolescents in Criminal Events, in Youth on Trial*, 371 (Thomas Grisso & Robert G. Schwartz eds. 2000), note 12, at 372, 389- 91.

Yet, precisely because of their legal minority, juveniles lack the freedom to remove themselves from those negative external influences. Put simply, juveniles lack the control over themselves and their own lives that autonomous adults possess, mitigating their blameworthiness for not extricating themselves from destructive or "criminogenic" situations. *Roper*, 543 US at 569. Juveniles are also especially vulnerable to the negative influence of peer pressure and other social factors. Sarah-Jayne Blakemore & Trevor W. Robbins, *Decision-*

Making in the Adolescent Brain, 15 Nature Neuroscience 1184, 1184 (2012).

Research has shown that a minor's susceptibility to peer pressure to engage in antisocial behavior increases between childhood and early adolescence, peaking at around age 14, and then declines slowly during the late adolescent years, with relatively little change after age 18. Elizabeth Scott & Laurence Steinberg, *Rethinking Juvenile Justice* 38 (2008); Thomas Berndt, *Developmental Changes in Conformity to Peers and Parents*, 15 Developmental Psychol 608, 612, 615-616 (1979); Laurence Steinberg & Susan Silverberg, *The Vicissitudes of Autonomy in Early Adolescence*, 57 Child Dev 841, 848 (1986); Jeffrey Fagan, *Contexts of Choice by Adolescents in Criminal Events, in Youth on Trial*, 371, note 31, at 382-84 (discussing coercive effect of social context on adolescents). For instance, one major study documented that exposure to peers during a risk-taking task actually doubled the amount of risky behavior among mid-adolescents (with a mean age of 14), increased it by 50 percent among college undergraduates (with a mean age of 19), and had no impact at all among young adults. Margo Gardner & Laurence Steinberg, *Peer Influence on Risk Taking, Risk Preference, and Risky Decision Making in Adolescence and Adulthood*, 41 Developmental Psychol 625, 626-634 (2005). "[T]he presence of peers makes adolescents and youth, but not adults, more likely to take risks and more likely to make risky decisions." *Id*. at 634; *see also* Laurence Steinberg & Kathryn Monahan, *Age Differences in Resistance to Peer*

Influence, 43 Developmental Psychol 1531, 1538 (2007) (same).

IV. Science has documented that juveniles experience developmental immaturity that renders their decision-making process more risk prone and more impulsive than that of an adult.

As a group, adolescents make decisions in ways that differ from adults, and those distinctions are at least partially attributable to developmental differences in a variety of brain regions. *See* Laurence Steinberg, *A Social Neuroscience Perspective on Adolescent Risk-Taking*, 28 Developmental Rev 78, 83-92 (2008). These now better-understood developmental differences impact adolescents' capacities to appreciate the benefits and consequences of their actions and their ability to make fully reasoned, independent decisions about the best course of their actions. Although general cognitive skills improve by mid-adolescence, the development of some important cognitive functions lags behind, as different parts of the brain mature at different rates.

Many factors that can influence youthful decision making and serve to distinguish adolescents from typical adults are shared by mentally disabled offenders. These traits—such as poor judgment in youths—are biologically similar to mentally disabled individuals. In *Atkins v. Virginia* (2002), the Supreme Court ruled that the execution of mentally disabled offenders violates the U.S. Constitution. 536 US 304. 122 S Ct 2242, 153 L Ed 2d 335 (2002).

However, unlike mentally impaired individuals, adolescents will eventually mature out of their tendencies to make poor choices. The reasoning

capabilities of juveniles increases through childhood into adolescence and that preadolescents and younger teenagers differ substantially from adults in their cognitive abilities.

"[P]sychology and brain science continue to show fundamental differences between juvenile and adult minds." *Roper*, 543 US at 570. This makes juveniles' actions "less likely to be evidence of 'irretrievably depraved character.'" *Id.* at 471-472. These developmental differences impact adolescents' capacities to appreciate the benefits and consequences of their actions, and their ability to make reasoned, independent decisions about the best course of action.

Although general cognitive skills improve greatly by the time mid-adolescence is reached, the development of some important cognitive functions lags, as different parts of the brain mature at different rates. Areas involved in more basic functions, such as those involved in sensory information processing and in movement control, develop first and the parts of the brain responsible for more top-down control, such as impulse control and foresight, are among the last to mature. Gogtay, 101 Proc Nat'l Acad Sci at 8174 (2004); Terry A. Maroney, *The Once and Future Juvenile Brain, in* Choosing the Future for American Juvenile Justice 189, 193 (Franklin E. Zimring & David S. Tanenhaus eds. 2014).

While youth's brains are undergoing changes in cognitive control

regions, areas of the brain responsible for emotion also change substantially. Laurence Steinberg, Human Rights and Adolescence 59 (Jacqueline Bhabha ed, 2014).

Because there is less communication between brain systems that regulate rational decision making and those systems that regulate emotional arousal during adolescence, very strong feelings are also less likely to be tempered by impulse control, planning ahead, and weighing the costs and benefits of alternative choices of action. *Id.* at 65.

Studies have documented that the older adolescents do not differ markedly from adults in their ability to rationally evaluate risk information. Dustin Albert & Laurence Steinberg, *Judgment and Decision-making in Adolescence*, 21 J of Res On Adolescence 211, 213 (2011). Research has shown that in reality, teens still engage in dangerous behaviors despite understanding the risks involved. Mariam Arain, *et al*, *Maturation of the Adolescent Brain*, 9 Neuropsychiatric Disease & Treatment 449, 453 (2013).

This disparity has led researchers to examine differences in decision-making during modes of information processing that are analytic, or "cold", with those that are experiential, or "hot." Albert & Steinberg, 21 J of Res on Adolescence at 212.

> Hot cognition is described as thinking under conditions of high arousal and intense emotion. Under these conditions, teens tend to make poorer decisions. The opposite of hot cognition is cold cognition, which is critical and over-analyzing. In cold cognition, circumstances are less

intense and teens tend to make better decisions.

Arain, 9 Neuropsychiatric Disease & Treatment at 455. Adolescent decision-making is particularly susceptible to influence from emotional and social factors. Sarah-Jayne Blakemore & Trevor W. Robbins, *Decision-Making in the Adolescent Brain*, 15 Nature Neuroscience 1184, 1184 (2012). In hot emotional contexts, youth decision making tends to be driven more by the socio-emotional parts of the brain than by the cognitive controls, *Id*. at 1188, making adolescents more likely to act emotionally and impulsively without engaging in a formal decision-making process. *See* Albert & Steinberg, 21 J of Res on Adolescence at 211. "Thus, adolescents are more likely than children and adults to make risky decisions in emotionally 'hot' contexts[.]" Blakemore & Robbins, 15 Nature Neuroscience at 1187. All of these attributes cause adolescents to make different calculations than adults when they participate in criminal conduct, weakening the deterrence rationale for a life without parole sentence, and supporting the categorical unconstitutionality of that sentence when imposed for juvenile-committed offenses.

V. Juveniles have a heightened vulnerability to coercive circumstances.

The susceptibility of juveniles to immature and irresponsible behavior means "their irresponsible conduct is not as morally reprehensible as that of an adult." *Roper*, 543 US at 570 (quoting *Thompson v. Oklahoma*, 487 US 815, 835, 108 S Ct 2687, 101 L Ed 2d 702 (1998) (plurality opinion)). Juveniles'

vulnerability and their lack of control over their home life and surroundings "mean juveniles have a greater claim than adults to be forgiven for failing to escape negative influences in their * * * environment." *Id.* Further, "[t]he reality that juveniles still struggle to define their identity means it is less supportable to conclude that even a heinous crime committed by a juvenile is evidence of irretrievably depraved character." *Id.*

Synaptic pruning and myelination—both processes involved in the maturation of the brain—occur relatively late in the prefrontal cortex, *id.*, the brain region associated with executive functioning, which governs "the capacity * * * to control and coordinate our thoughts and behavior." Sarah-Jayne Blakemore & Suparna Choudhury, *Development of the Adolescent Brain: Implications for Executive Function and Cognition*, 47 J of Child Psychol 296, 301 (2006). This later development within the prefrontal cortex is critical for the evolution of higher-order cognitive functions, such as foresight, weighing risks and rewards, and making decisions that require the simultaneous consideration of multiple sources of information. Laurence Steinberg, *Adolescent Development and Juvenile Justice*, 5 Ann Rev of Clinical Psychol 47, 54 (2009).

Because of the under-development of the prefrontal cortex, adolescents have difficulty in thinking realistically about events that may occur in the future. This means that juveniles are both less likely to think about potential

long-term consequences, and more likely to assign less weight to those that they *have* identified, especially when faced with the prospect of short-term rewards. *See* Elizabeth S. Scott & Laurence Steinberg, *Adolescent Development and the Regulation of Youth Crime*, 18 The Future of Children 15, 20 (2008); *J.D.B. v. North Carolina*, 564 U.S. 261, 272, 131 S. Ct. 2394, 180 L. Ed.2d 310 (2011) (stating that adolescents "often lack the experience, perspective, and judgment to recognize and avoid making choices that could be detrimental to them."); *Graham*, 560 US at 78. Although juveniles have the capacity to reason logically, they "are likely less capable than adults are in *using* these capacities in making real-world choices, partly because of lack of experience and partly because teens are less efficient than adults in processing information." Scott & Steinberg, 18 The Future of Children at 20.

These differences between adolescent and adult brains demonstrate why the deterrence rationale fails to support the constitutionality of juvenile life without parole sentences, even for juveniles who commit murder. Whatever deterrence might be achieved by a life without parole sentence for an adult, the courts have recognized "youth matters" for analyzing the constitutionality of that sentence when imposed for a crime committed as a juvenile, rendering the permanent elimination of any chance for release unconstitutional.

VI. A juvenile's character is still developing as he or she grows older.

Juveniles are still developing their character and identity as they age and mature towards adulthood. The United States Supreme Court has recognized, "the character of a juvenile is not well formed as that of an adult," and "[t]he personality traits of juveniles are more transitory, less fixed." *Roper*, 543 US at 570. Correspondingly, "[j]uveniles are more capable of change than are adults, and their actions are less likely to be evidence of 'irretrievably depraved character.'" *Graham*, 130 S Ct at 2026. Research has demonstrated that personality traits in youth change markedly from adolescence to adulthood and the process of identity-formation typically remains incomplete until at least a person's early twenties. *See* Brent Roberts *et al*., *Patterns of Mean-Level Change in Personality Traits Across the Life Course*, 132 Psychol Bull 1, 14-15 (2006); Alan Waterman, *Identity Development from Adolescence to Adulthood*, 18 Developmental Psychol. 341, 355 (1982) ("The most extensive advances in identity formation occur during the time spent in college."); Laurence Steinberg & Robert Schwartz, *Developmental Psychology Goes to Court*, in *Youth on Trial, supra* note 12, at 9, 27 ("[M]ost identity development takes place during the late teens and early twenties."); Laurence Steinberg & Elizabeth Scott, *Less Guilty by Reason of Adolescence: Developmental Immaturity, Diminished Responsibility, and the Juvenile Death Penalty*, 58 Am Psychologist 1009, 1012 (2003).

Most juveniles will go on to outgrow their antisocial behavior as the "impetuousness and recklessness" of youth recede in adulthood. *Roper,* 543, US at 570. The risky behaviors exhibited by many youth flows from experimentation and not from any type of deeply-embedded moral deficiencies that reflect "bad" character. Terrie Moffitt, *Adolescent-Limited and Life-Course-Persistent Antisocial Behavior: A Developmental Taxonomy*, 100 Psychol Rev 674, 685-686 (1993), note 5, at 686, 690. This phase can be seen as transient because "the vast majority of adolescents who engage in criminal or delinquent behavior desist from crime as they mature." Steinberg & Scott, *supra* note 14, at 1014-1015; *see also* Moffitt, *supra* note 5, at 686-686; Kathryn C. Monahan *et al*, *Trajectories of Antisocial Behavior and Psychosocial Maturity from Adolescence to Young Adulthood*, 45 Dev Psych 1654 (2009), note 7, at 1654, 1655.

The ability for a fact finder to distinguish between the majority of still-developing adolescent defendants who will mature beyond their criminal act and the exceedingly few defendants who are otherwise "irredeemable" and should thus be consigned to life imprisonment is exceedingly difficult if not impossible. Researchers have consistently concluded that the behavior of juveniles who will and who will not continue as criminal offenders through adulthood is "often indistinguishable during adolescence." Monahan *et al*, 45 Dev Psych, note 7, at 1655; *see also* John Edens et al., *Assessment of "Juvenile*

Psychopathy" and Its Association with Violence, 19 Behav Sci & L 53, 59 (2001) (collecting evidence that psychopathy assessments may "tap construct-irrelevant variance associated with relatively normative and temporary characteristics of adolescence rather than deviant and stable personality features"); Edward Mulvey & Elizabeth Cauffman, *The Inherent Limits of Predicting School Violence,* 56 Am Psychologist 797, 799 (2001) ("Assessing adolescents * * * presents the formidable challenge of trying to capture a rapidly changing process with few trustworthy markers."); Thomas Grisso, *Double Jeopardy: Adolescent Offenders with Mental Disorders* 64-65 (2005) (noting discontinuity and disappearance of mental disorders identified in adolescence).

CONCLUSION

For the foregoing reasons, *Amici Curiae* Oregon Justice Resource Center respectfully requests that this court reverse the decision of the lower court sentencing Defendant Tinoco-Camerana to a term of lifetime imprisonment without the possibility of parole.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE
WITH BRIEF LENGTH AND TYPE SIZE REQUIREMENTS

Brief length

I certify that (1) this brief on the merits complies with the word-count limitation in ORAP 8.15(3) n 5 and ORAP 5.05(2)(b)(i)(B) and (2) the word count of this brief (as described in ORAP 5.05(2)(a)) is 5331 words.

Type size

I certify that the size of the type in this brief is not smaller than 14 point for both the text of the brief and footnotes as required by ORAP 5.05(4)(f).

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CERTIFICATE OF FILING AND SERVICE

I certify that on December 14, 2018, I filed the original of this BRIEF ON THE MERITS OF *AMICUS CURIAE* OREGON JUSTICE RESOURCE CENTER with the State Court Administrator by the eFiling system.

I further certify that on December 14, 2018, I served a copy of the BRIEF ON THE MERITS OF *AMICUS CURIAE* OREGON JUSTICE RESOURCE CENTER on the following parties by electronic service via the eFiling system:

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